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PERNICIOUS ANEMIA IN OLD AGE

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CONCLUSIONS and SUMMARY

1. Pernicious Anemia is more frequent in old people than has been widely recognized.

2. This disease in the aged is distinguished by a rather atypical, protracted, and latent course together with various semiotics. Usually the hyperchromic, macrocytic anemia with a megaloblastic type of blood formation, is moderate or mild, and may be absent for a long period of time before becoming evident. The extra-anemic facets of the condition are more or less pronounced in all the patients. These include neurological manifestations due to the lesions of the posterior or lateral columns, peripheral plexi and nerves, mental disorders, and diverse cardiovascular abnormalities. The disorders of the digestive system play a subordinate part in the clinical picture in most instances.

3. The therapeutic test of liver treatment should be carried out in all doubtful cases, and the beneficial effects of this therapy in early stages of the disease are self evident.

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FORMERLY Pernicious Anemia was regarded as a disease of adult life which rarely affects the aged (Lazarus, Cabot, Morawitz, Pic-Bonnamour, Vinogradov, Dublin and Lotka, Eason). After the advent of liver treatment the age distribution of this condition changed. Many modern authors revealed its increase in incidence with advancing age —up to the age of 70-75 years (Naegely, Wintrobe, Nordenson and coworkers, Zimmer). Neverthless it is generally conceded that most cases become clinically apparent between 45 and 60 years and that the development above this age was quite uncommon (Minot). Some authors expressed the view that old age plays a more important part in the etiology of the disease than is commonly believed (Cuzschmann, Meulengracht, Aschoff, C. G. Sturgis, W. M. Fowler). I have had the opportunity of observing many cases of the late development of Pernicious Anemia and I have gained the impression that this may be encountered in septuagenarians and octogenarians more often than it has been widely recognized up to the present time.

It must not be forgotten that in the popular concept the symptoms and signs of Pernicious Anemia in aged are much like those of younger patients (Schlesinger, Rauzier, Pappenheim, Grawitz, Hirsch, Vlados, Mueller-Deham, Schulten, R. Isaaks and others). My own experience differs from that of the authors mentioned. I believe that the typical clinical picture of Pernicious Anemia occurs in old patients rather rarely. The onset of the disease is usually very insidious. The blood changes progress slowly. The latent period between the onset of the earliest symptoms and the pronounced anemia is accordingly more considerable in aged than in younger patients. The disease runs a much more protracted course without many of the usual manifestations. In senile patients, for instance, the pallidness of the skin usually is not so apparent because of a pre-existent mild or moderate anemia, and the typical lemon-yellow tint is rarely detectable inasmuch as the senile changes of the skin are well defined. Proper evaluation of the conjunctival condition is often difficult because of frequent chronic conjunctivities, and there is usually no discrepancy between pallor and well-nourished appearance so frequent in younger patients, since a more or less considerable reduction in weight is common in old age. The well-known alterations of the tongue (Hunter's tongue) may be masked by the various senile changes, and the common complaint of sore tongue is not frequent. The failure of secretion of free hydrochloric acid—rather common in the healthy aged person—again masks the constant sign of gastric achylia of pernicious anemia, and the clinical evaluation of diverse dys-

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peptic disorders is difficult because of the frequency of routine gastric changes in old people. Senile atrophy of the spleen again confuses the issue of the absence of splenomegaly as a contributory diagnostic sign, and fever is extremely rare. There is no evidence that old people suffering from pernicious anemia are distinguishable by the presence of extremely gray hair. The clinical significance of high values of blood bilirubin and urine urobilin and urobilinogen furthermore, is not so impressive as in younger patients inasmuch as older ones may develop heart failure, and the high content of these ingredients may be due to routine liver congestion and dysfunction.

I have observed aged patients in early stages of Pernicious Anemia where the disease could not be recognized or even suspected for a long time. They have been regarded as suffering from Cerebral Arteriosclerosis, Arteriosclerotic Heart Disease, Coronary Disease, Senile Deterioration. . . . In some cases above conditions could be simulated in Pernicious Anemia even for months because the disease started in them with routine cardiovascular disorders, anginal attacks, generalized withering, mental symptoms etc. I believe that difficulties in the recognition of Pernicious Anemia in aged at an early stage are due to the confused clinical picture, especially varied complaints, which differ from the typical ones, the slow development of anemic changes or occasionally their complete absence for a long period of time, and the mistaken tendency for some physicians to explain all of the above symptoms and signs in old patients by senility itself or by "Diseases of Old Age," which they feel do not merit much attention, as "unavoidable and incurable." Indeed the patients in question are really old, especially from the chronological point of view, and show usually more or less marked involutional changes and some manifestations of Arteriosclerosis or other chronic conditions frequent in the late decades. However even in the more obscure cases of Pernicious Anemia in old age the failure to make an early diagnosis is due mostly to the fact that the given condition has not been considered but not because it could not be demonstrated.

Hematological studies usually give important evidence even if the anemia is still quite mild. They differentiate Pernicious Anemia from the host of varied other mild or moderate anemias frequently seen in aged. The anemias associated with undereating, anorexia, defective mastication and so on, are neither hyperchromic nor macrocytic. If anemia remains moderate or mild for a long time but the figures of the color index show a constant increase, the probability of Pernicious Anemia should be considered. This probability becomes much more certain when examination of the smear reveals macrocytosis and a considerable variability in the size and shape of the cells. Here the direct measurement of the red cells is of prime importance, and with care, the investigator may detect the presence of many "giant cells" (9-10 micra or more in diameter), and to determine an obvious increase in the mean-cell diameter of perhaps 8 to 8,9 micra. The results of this time-consuming procedure seem to be of more value than the determination of the mean corpuscular volume, as the values of the latter may be increased insignificantly—to the level of 110 cubed micra or slightly more—in cases of mild anemia. The examination of marrow smears in doubtful cases may show a considerable increase in diverse cells of the megaloblastic type, mostly polychromatophillic and acidophillic megaloblasts, together with different myeloid cells and rather numerous reticulum cells. The presence of megaloblasts in the blood of older patients occurs less frequently than in the blood of younger patients, and the number of routine normoblasts likewise appears to be diminished. The reticulocyte count shows a slight increase probably less pronounced than in the younger age group, but Heylmeier's differential count shows no abnormalities which merit mention. An insignificant leukopenia and granulocytopenia may take place and perhaps more often than in adults. That is the case with platelets. Not infrequently an increased amount of the giant polymorphic platelets may be found—not a rare finding in adults too (Mikhalchenko, Arneth). It is obvious that a detailed hematological examination can establish the presence of the hyperchromic and macrocytic character of anemia and the megaloblastic type of hematopoiesis very readily in most obscure cases. However the negative findings are less suggestive in old people than positive ones. In some instances the results of the hematological investigation remain negative or not quite certain for a long period of time. Therefore the diagnostical value of the extra-anemic facets of the disease appears to be more considerable in aged than in younger patients.

The thorough neurological examination of the questionable case of Pernicious Anemia in aged is of inestimable importance. Before the advent of liver treatment, the neurological disorders associated with this condition were thought to be quite rare, but in the opinion of modern authorities, they are encountered very frequently, the mild forms in between 70 and 95% of the cases, the moderate forms in 30%, and the severe forms in about 10% of the cases (Goldhamer, Bethel, Isaaks and Sturgis, Smithburn and Zerfas, Grinker and Kandell and others). It is most interesting to note that in about 25% of the cases, the neurological disorders have been present for a rather long time before the other signs of Pernicious Anemia became present,

this being particularly true in the older people (Minot, Suh and Merrit, Buerger). The so-called "Subacute Combined Sclerosis" of the spinal cord which some clinicians declare to be limited largely to the group between 45 and 65, has been observed not infrequently among the very aged, this sclerosis preceding the development of clinical anemia by months or perhaps 1-2 years. The initial symptoms in order of frequency were: numbing and tingling of the feet, weakness of the legs, difficulties in walking, muscular pains, clumsiness in handling objects, stiffness of the limbs, hyperesthesia of the soles, bladder disturbances and girdle sensations. As a rule they have shown a slow progress, and do not seem to disturb our old patients too much. The presence of this syndrome could be definitely established by detailed neurological examination. The diminution of vibratory sensation in both lower extremities, some incoordination resulting in disturbance of gait, impairment of position sense, hypoactive patellar reflexes, hypotonicity were more or less marked in all our cases. The other signs were less common. The exaggerated deep reflexes could be observed rather rarely. Nearly always these findings formed on the whole a very conspicuous and demonstrable clinical picture. There were really no difficulties in separating the neurological syndrome of Pernicious Anemia from those of Multiple Sclerosis, Polyneuritis, Tabes Dorsalis, Senile Parkinsonism etc. In the modern concept of the cause of the neurological changes, the general feeling is that they are sequellae of the same cause as the anemia itself, and obviously are not related directly to the development and degree of this. The morphologic alterations of the nervous system appear to be varied both in extent and localization: the areas of degeneration and atrophy, and the apparent increase in gliosis in the dorsal and lateral funiculi, dorsal root ganglia, celiac ganglia, Auerbach and Meissner plexus and peripheral nerves. No wonder that the clinical picture of the given disease is so varied.

The analogous changes were found in the brain, too, especially in the subcortical areas of the motor region (Lebensart). Also mental disturbances are commonly seen in patients suffering from pernicious anemia (Barret, Lurie, Warburg and Jurgenson). According to Goldhammer and al. they may be present in about two thirds of cases. In aged patients studied in our surveys, mental disorders were almost constantly seen, in the following order of frequency: apathy, disorientation, memory defects, confabulations, mild depression, delusions, emotional lability etc. Mental disorders of a frankly psychotic nature were present in only a few cases. Especially in the absence of typical hematological signs, it is important to correctly interpret minor mental changes with accompanying neurological disorders. Indeed it presents often a rather difficult problem for the psychiatrist, since they can be caused by the anemia itself and concommitant malnutrition and debility or by the "associated conditions such as senility, arteriosclerosis, diabetes and other disorders which occur in persons of advanced years" (Hackfield, Bowman). The conclusion may be readily made that the mental symptoms of Pernicious Anemia including the changes of personality, are too often attributed to old age (R. Isaaks). It should also be mentioned that some clinicians have been able to observe a certain improvement in the mental condition in Pernicious Anemia after the administration of liver extractives (Preu and Geiger, Herman, Most, Joliffe).

It has been mentioned that Pernicious Anemia started in some observed patients with diverse cardio-vascular disorders which did not respond well to routine treatment. The role of the heart in anemia has been liberally discussed since the first observations of Bamberger in 1857. It is well known that any severe anemia, especially Pernicious Anemia, may be complicated by the development of cardiac enlargement and hypertrophy, hemic murmurs, venous "bruit de diable," tachycardia, and different electrocardiographic abnormalities (inversion of T_1, or T_2, depressed S-T segment, lengthening of Q-T interval etc.). Special studies of hemodynamics have shown in severely anemic patients an increased basal metabolic rate, an increased cardiac output and stroke volume, an elevated arterio-venous difference in the oxygen concentration and quotient of oxygen utilization, and a diminished circulation time (Stewart, Crane and Deitrick, Basylewyz and Turovetz, Brannon, Merril and Warren, Shaeper-Sharpey and others). Obviously these changes are dependent upon the development of anemia, and the decrease of oxygen transportation and supply to the tissues, and can be interpreted as a physiological adjustment of the affected body. It is understandable that a mild or moderate anemia may precipitate circulatory disorders and heart failure in old people with a definite decreased margin of safety. Again, as with the neurologic and mental disorders, many cardiac abnormalities subside with the improvement in the blood condition (Schwarz and Legere, Carter and Traut, Stalker). In addition, a definite relief of cardiac disorders has been noted after liver treatment in most our cases of Pernicious Anemia which failed to show any pronounced anemia. The well known Wenkebach's "Beri-Beri Heart" occurring as a result of niacin deficiency is widely recognized. Nicotinic acid deficiency is believed by Feil, to be associated with some cardiac abnormalities. The vitamin B-12 avitaminosis of Pernicious Anemia may be supposed to produce diverse cardiac mani-

continued on next page

festations through a direct effect upon the nervous system of the heart, and/or the myocardium.

A therapeutic test of liver treatment appears to be a very valuable asset in every doubtful case, and the old-fashioned rule: "Diagnosis ex Juvantibus" should not be forgotten in this disease of old people. Sometimes the response is most striking, patients showing an obvious improvement within a short time, with their constitutional symptoms being the first to subside. An increased vigor, alertness, better general behaviour and an increased appetite then follow. However the return of physical strength and vitality is not as clear cut, but is more gradual. The hemopoietic response seems to be rather sluggish, with reticuloplasia not appearing as dramatically as in the younger patients. The red blood count begins to rise conspicuously some two to four weeks after institution of treatment and is followed by a less rapid rise in hemoglobin. Likewise, there is a progressive improvement in the outward appearance and color of aged patients treated successfully with liver. Parallel to and often antedating the hematological response, there is a relief of cardio-vascular disorders. The gastrointestinal manifestations subside, as a rule, very soon. However they play usually a quite subordinate role in the clinical picture presented by old patients. The most important point, of course, is the possible improvement of the nervous disorders. The efficacy of liver treatment in arresting or preventing involvement of the nervous system is invaluable in old patients as well as in younger ones. It must be added that a more or less marked disappearance of this involvement was observed in many of our cases. In treatment, usually the first change is a diminution of the numbing and tingling and other paresthetic disturbances, followed by an improvement in cutaneous and joint sensibility, position sense, and lastly vibration sense and deep reflexes reestablishment. Likewise, there is a progressive and marked improvement in the mental condition. Only in the far advanced stages are the results of liver treatment mediocre, the longer the neural (and myocardial) damage exists, the more irreversible the case.

In agreement with many authors I believe that the aged, as a rule, do not respond to liver treatment as promptly as younger patients (Heilmeier, Muller-Deham, Buerger and others). In order to assure adequate dosage it is necessary to provide a minimum of 15 units parenterally per day to the patient suffering from severe and disabling changes. It is wise to continue this treatment for a period of 4-10 weeks or longer, depending upon the individual particularities of each case. The newer mode of treatment of Pernicious Anemia consisting of vitamin B-12 administration has a great future in the therapy of this condition as well in the aged as in younger patients. Experience has shown that the concomitant administration of large doses of the B-Complex vitamins is especially advisable in old patients, with the idea in mind that little is actually understood concerning the complex inter-relationship among the various members of the vitamins B group and vitamin B-12. The recent studies of Kirk and Chieffi showed that vitamin B-1 deficiency in old age is associated with such disorders as general fatigue, weakness, and heaviness of the legs, impaired vibratory sense of the lower extremities, etc. The concomitant administration of the male sex hormone seems to be of some value in the very aged and weak patients. The ferruginous preparations may be used in the cases complicated by an iron deficiency. Finally the importance of the adequate care, diet and routine medication must not be underestimated.

DISCUSSION

As mentioned previously, the hematological signs of Pernicious Anemia as it develops in the aged, are not so definite or distinct as when the disease manifests itself in younger people. With only a mild or moderate degree of blood morphology changes in aged patients, we see a marked degree of the extra-anemic components of this disease: —diverse alterations of the posterior and lateral funiculi, peripheral plexi and nerves, mental disorders, and cardiovascular lesions. The increased vulnerability of body tissues in the aged, influenced by involutional changes, may be responsible for the predilection for the above-described alterations. Pernicious Anemia without any demonstrable anemia may be encountered also in younger patients. The frequency of this form shows a considerable increase with advancing age. It is for this reason that the name "Pernicious Anemia" seems to be now somewhat misleading, especially in the aged, since the anemia components of the disease process are apparently a minor part of the total disease entity of Addison-Biermer Disease in them. Here as ever medical attention must be focused upon the bodily system as a whole, and not solely upon the certain organ or system. The disease effect is discernible in all cells, organs and systems simultaneously, and therefore, a general view of this condition must be adopted. The vitamin B-12 deficiency which plays such an important part in the pathogenesis of Pernicious Anemia, causes changes in many biochemical chain reactions. The resulting abnormalities in the transformation of Thymine into Thymidine, seem to be essential in the pathogenesis of this condition. Naturally these defects in the formation of Nucleosides do not end with the hemopoietic organs, but are found in most all the cells and tissues of the body.

continued on page 664

RECTAL BLEEDING

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IN THE PAST, the discovery of some blood following a bowel movement usually suggested the presence of hemorrhoids and merited little concern. Now, however, with the increasing radio and newspaper publicity and widespread emphasis on the possibility of malignancy being present with any sign of blood from an orifice, the hideous spectre of cancer is evoked in the layman's mind. This is sufficiently alarming to impel the host to seek medical consultation. Yet it is a fact that nearly every proctologic ailment is accompanied by bleeding either routinely or on occasion. It has been my experience that increasing numbers of patients are aware of the significance of rectal bleeding and its possible association with malignant disease. Like the unheralded hemoptysis of incipient tuberculosis, rectal bleeding is a beneficent development only when its numerous possible sources are explored and appropriate diagnostic procedures invoked.

It has been repeatedly stated by many distinguished clinicians that the particular duty of the consultant is to insert a finger into the patient's rectum. Without attempting to offer any explanation for this phenomenon of clinical apathy, the fact remains that despite the exhortations of innumerable articles, it is still the careless custom of many physicians to ascribe rectal bleeding to hemorrhoids. Other more conscientious practitioners, alive to the constant danger of overlooking a malignant neoplasm, would be hard pressed nevertheless to entertain serious consideration of disorders other than hemorrhoids and carcinoma, as possibly responsible for rectal bleeding. Among others, there is a general impression that dark blood with clots indicates a lesion in the colon and bright blood in the rectum. This may be true in the majority of the cases but exceptions to this rule are so numerous that the "rule" has no value.[1] In fact, this idea has done a great deal of harm, since many physicians have been led to make a diagnosis as to the location of the lesion on the type of blood. The important fact is that blood of any kind has been passed.

It seems justifiable, therefore, to review the most common causes of rectal and colon bleeding, the methods of examination used to determine the cause of such bleeding and outline measures which will relieve this difficulty. These principles should be appreciated by all physicians doing general diagnostic work.

Any adult patient with a history of bleeding from the rectum should be considered to have a malignancy of the gastrointestinal tract until proved otherwise. It is true that many such patients do not have cancer[2] or hemorrhoids but examinations must be carried out on this group of patients which are adequate not only to assure the patient that he does not have malignant disease but also to determine the source of the rectal or colon bleeding.

In recent and very complete articles on this subject, the recommendations are "that a complete proctologic study including proctosigmoidoscopic examination, examination of the stools, and an x-ray of the colon" should be done for all patients with rectal bleeding. Every practitioner knows this. Often, he is not certain as to the one in whom it is necessary. Some seventy conditions which produce blood in the stool are listed, leaving the reader's mind filled with a bewildering confusion of causes but with few concrete suggestions as to how to proceed. If these recommendations are carried out, many patients will be subjected to arduous and unnecessary investigation and expense. On the other hand, if they are not followed, some serious conditions may remain undiscovered. With the above in mind, I have attempted to arrange a graphic representation of the methods I have more or less automatically followed. Before proceeding further, I might say that this discussion does not apply to those persons with massive rectal hemorrhage and in whom the primary concern is the treatment of shock and blood loss.

continued on next page

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Plan for the Detection of the Source of Rectal Bleeding.

1. History.
2. Inspection of perianal region and anal orifice.
3. Digital examination—cause palpable to the examining finger.
4. Anoscopic examination.
   a. Cause detected and easily remedied.
   b. Cause detected requiring lengthy or extensive treatment.
   c. Cause not detected.
5. Sigmoidoscopic examination:
   a. Cause detected and easily remedied.
   b. Cause detected requiring lengthy or extensive treatment.
   c. Cause not detected.
6. Radiographic study of colon.
7. Other investigations of upper gastrointestinal tract.

Duration, Amount and Type of Bleeding.

In all cases involving rectal bleeding,[3] a careful and detailed history is of value and is occasionally diagnostic of itself. Special emphasis should be placed on the duration, the amount and the type of bleeding and whether it is accompanied by other symptoms.

As to duration—bleeding off and on for a number of months or years in a young person hardly indicates malignancy although the latter diagnosis must always be ruled out by further examination unless the cause is readily detected and promptly obliterated by treatment. On the other hand, bleeding of a few weeks or months duration and of a persistent nature in a person of middle age or beyond, requires prompt sigmoidoscopic and radiographic examinations, with malignancy or ulcerative colitis as definite possibilities.

The type and amount of bleeding is often overlooked. An occasional spot of blood on the toilet tissue following an evacuation without other gastrointestinal symptoms probably arises from the anal margin. Painless bleeding sometimes in alarming quantities first noted in the water of the bowl, as the patient remains sitting following a bowel movement is quite suggestive of a ruptured prolapsing internal hemorrhoid. Blood mixed with or on the stool most probably arises from some pathologic condition in the colon. A streak of red blood on the side of the stool is very suggestive of a polyp. A large, bulky, tarry stool intimates an upper gastrointestinal lesion[4] such as a bleeding peptic ulcer. The blood and pus associated with diarrhea is almost certainly associated with one of the inflammatory conditions of the gastrointestinal tract. Furthermore, if, in addition to the information obtained as above outlined concerning the duration, type and amount of bleeding, one or more other proctologic symptoms are evolved in the history, to accompany the bleeding, some very close diagnoses can be made even prior to the examination. For example, bleeding of a few days duration consisting of a stain on the wiping tissue, accompanied by exquisite pain at time of and following a bowel movement portrays a picture almost pathognomonic of a fissure in ano at the posterior commissure. (Anterior fissures often have bleeding as their only symptom.) Again, dark, clotted blood mixed with or on the stool plus a change in bowel habit points very strongly toward malignancy at or above the rectosigmoid junction. On the other hand, diarrhea of long duration associated with subsequent appearance of blood suggests an ulcerative colitis. Bleeding with tenesmus calls for careful examination of the lower rectum with malignancy, proctitis, and lymphomata, as possibilities. However, in taking into consideration other proctologic symptoms a diagnosis of semi-strangulation of a polypoid tumor, foreign body and abscess can readily be entertained. It is well to remember that reflex symptoms[5] can occur in other organs from pathology located in the anus or rectum while, conversely, symptoms in the latter regions often accompany trouble in some neighboring organ. A diagnosis of coccygodynia should never be made until careful search for the presence of rectosigmoidal malignancy has been carried out. Constipation[6] often has been found to disappear on eradication of a chronic fissure or a subacutely infected anal duct at the posterior commissure. An enlarged and distended prostate, an endometriosis[7] in the recto-vaginal septum, a tumor of the adnexa or a uterus so retroverted that its fundus lies on the anal musculature are often only discovered because they give rise to symptoms in the anus and rectum. The blood dyscrasias, hypertension, certain nutritional deficiency and systemic diseases are accompanied by bleeding from the various mucous membranes, although the exact location of the bleeding cannot always be ascertained. Considerable interest has been stimulated lately by the contention that psychosomatic[8] influences can and do produce bleeding in the gastrointestinal tract. All these cases must be carried through the plan of detection as outlined earlier in this presentation.

Inspection

This should be done with the patient in one of the Sims positions (preferably the right). In this position the visual and palpable landmarks are in their normal location and are not exaggerated in shape nor size. The right hand is left free to handle instruments. The patient is in a comfortable, relaxed and non-embarrassing position. A good light, cotton swabs, applicators, probes, a waste receptacle for the convenient disposal of used material, and a

stool for the examiner to sit on at a convenient level to the patient, are part of every physician's office equipment and needed for a competent rectal examination.

There are a number of conditions causing bleeding which may be seen on inspection. An excoriated pruritic skin, anal condylomata, minor injuries, or a true anal fissure or ulcer may be the source of blood seen on the toilet paper. A ruptured abscess or the external opening of a fistula, prolapse, prolapsing hemorrhoids, a prolapsing polyp, or an epithelioma of the anus may be easily seen. Not infrequently following operative procedures such as the early Whitehead type of hemorrhoidectomy or the amputative types of operations for hemorrhoids, exposed areas of anal mucosa are seen which bleed with trauma. The bleeding in these conditions is usually bright red and spotty. These patients complain of blood on the toilet tissue and soiling their clothes. Treatment is usually surgical and consists of a plastic procedure for correction of the defect.

Traumatic stricture at the mucocutaneous junction, such as is commonly seen following hemorrhoidectomy, may be the cause of rectal bleeding. Stricture and ulcerations associated with tuberculosis, lymphogranuloma,[9] and the venereal infections may be apparent on inspection.

Digital Examination

The fact that a malignant lesion may accompany any one of these conditions, however, make it imperative that the cause of rectal bleeding never be established by a cursory inspection of the perianal area and anal orifice. Regardless of the patient's story or the findings on inspection, all should have a digital examination. That this point needs to be impressed is remarkable, but experience proves that it does. The patient should be in the Sims position with the examiner first seated on the stool, and then standing. The flexor surface of the finger should be directed forward, and in a circular manner, and then with the examiner standing, it should be directed toward the sacrum, at which time the finger can be made to pass into the rectosigmoid junction in most patients. It is quite impossible to do this with the finger directed forward as in an examination of the prostate.

It has been estimated that 60% of the malignant disease of the colon and rectum can be palpated by the examining finger. This fact alone makes it imperative that every patient with rectal bleeding have a careful digital examination of this region. Considerable additional information other than the presence or absence of a firm, fixed tumor can be obtained by this procedure. The presence or absence of stricture, muscle spasm, operative defects, the induration found at the base of a chronic anal ulcer or fissure, the tenderness of infected crypts and the presence of hypertrophied papillae, the soft, pulpy, painless enlargement of internal hemorrhoids, the presence or absence of an anal polyp or tumor and the firm areas of induration without ulceration of previous hemorrhoidal injections may be of significance in the establishment of a final diagnosis. Uncomplicated internal hemorrhoids cannot be felt. Following the digital examination, an anoscopic examination is to be done for all patients with blood in the stools.

Anoscopic Examination

Inspection of the anal canal through the anoscope will reveal the source of the largest number of cases of rectal bleeding. Hemorrhoids are the most common cause and their presence is obvious on inspection of this area. Even though bleeding is inconsequential so far as any discomfort or disability to the patient is concerned, indicated type of treatment, surgical excision or injection should be advised. By far the majority of patients with rectal bleeding can be relieved of their difficulty by simple, painless means. It is not the purpose of this paper to discuss the treatment of internal hemorrhoids. The author's presentation[10] of this subject can be referred to in our State Journal a few years ago.

There are many other causes of rectal bleeding which may be visualized through the anoscope. The internal opening of an anal fistula may be noted. Bleeding from this source usually is associated with a purulent discharge and the history of an abscess. Infected crypts and irritated papillae may cause an occasional bright red spotting. Bleeding associated with various types of inflammatory conditions[11] may vary considerably in character. Usually pus and mucus and varying degrees of diarrhea are associated. A not uncommon cause of rectal bleeding may result from localized areas of ulcerative proctitis. The bleeding in these cases is usually quite profuse, painless and there may be no associated abnormality of bowel function. Hypertrophied anal papillae or true anal polyps rarely if ever bleed.

The stricture associated with lymphogranuloma, observed in both white and colored patients, is occasionally found. Extensive stricture formation with multiple fistulas may be noted in the anal canal associated with chronic ulcerative colitis.[12] Internal prolapse, foreign bodies and now and then, parasites may be noted.

Sigmoidoscopic Examination

Above the anal canal, the 10 or 12 inch sigmoidoscope must be utilized to determine the source of the rectal bleeding. To the experienced examiner, it does not matter much whether the sigmoidoscopic examination is performed in the knee-chest or in the inverted jackknife position. However, arthritis and paralytics often require one of the Sims positions with the judicious use of air.

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The most common cause of rectal bleeding in this region is, of course, malignant disease. Benign mucosal polyps are found much more commonly than malignant tumors in this region but unfortunately, only a small percentage of the benign mucosal polyps bleed. All tumors visualized through the sigmoidoscope must be considered as malignant until proved otherwise. The benign mucosal polyps have significance because they are definite premalignant lesions.

In the differential diagnosis of tumors of the lower rectum a definite diagnosis can be made in many instances by the experienced observer on palpation. The firm fixed, indurated tumor with the typical ulcer crater and rolled edges is pathognomonic of malignancy. Next to palpation and sigmoidoscopy the most important method of examination of these tumors is histologic study. Lymphomas of the rectum, adenomas, lipomas and other tumors are rare but will occasionally be found.

It must not be overlooked in the study of these tumors that malignant disease may arise in any part of a benign mucosal polyp. Histologic study must, therefore, be made of not only all sections of the polyp but its base and adjacent bowel wall whenever possible.

The various types of inflammatory processes found in the lower bowel will not be discussed in detail in this presentation. The typical punched out bleeding ulcer of amebic dysentery is characteristic to the experienced observer. Multiple bleeding ulcerations, covered with pus and mucus, of ulcerative colitis are ordinarily not mistaken. A painless bright red bleeding may be due to a radiation proctitis.[13] Usually there is an associated stricture with this condition and invariably a history of radiation therapy,[14] probably to a lesion of the cervix.

Bleeding from above the sigmoid may be a massive hemorrhage caused by an intussusception or volvulus of the bowel or it may be from the upper intestinal tract such as is so commonly found associated with a peptic ulcer. It may be bright red but more often is of a "tarry" character or smaller in amount and mixed in with the stool. The source of such bleeding is often difficult to determine. It may, of course, arise from a malignant tumor or polyp. Diverticulitis[15] is associated with bleeding in a small percentage of cases. It must be remembered that chronic ulcerative colitis may be segmental and although this disease is usually observed through the sigmoidoscope it may be localized in any portion of the colon above the rectosigmoid. Bleeding may be associated with lesions of the right side of the colon. The presence of a palpable tumor and the association of an unexplained anemia should always make one consider the possibility of organic disease in the right colon.

Radiographic Examination

For diagnosis of lesions which lie above the reach of the sigmoidoscope, reliance must be placed on radiographic study. Sigmoidoscopic examination should be done before, and not following a radiographic study of the colon. Not infrequently a patient is dismissed on the basis of negative radiographic findings above, while, having a tumor which although justifiably missed or not observed by the roentgenologist, can be felt by the finger, or seen through the sigmoidoscope. Following all the examinations thus far described, when the cause of bleeding is apparent and there are no suggestions either from the history or physical findings that disease above this point may exist radiographic studies are not necessary. It is to be noted, however, that many of this group of patients do have symptoms of an alteration of bowel function, an unexplained abdominal pain or abdominal tumor, an anemia associated with their rectal bleeding, and to rule out the possibility of malignant disease in this group, careful radiographic studies of the colon must be made. Barium enema radiograph or contrast studies or small bowel series should be done by a well-trained roentgenologist. Fortunately for the patient and physician this branch of medicine is well represented in this area.

Additional studies are indicated when there is any suggestion of bleeding arising in the upper gastrointestinal tract. Gastric analyses, fluoroscopic studies of the esophagus and stomach, gastroscopy, esophagoscopy and other methods of examination must occasionally be employed.

There is a small group of patients in whom it has been difficult to make the diagnosis. They present rectal bleeding usually not associated with pain and many times not associated with other gastrointestinal or rectal symptoms. When complete investigations as already outlined have been carried out, and the source of bleeding has not been found, the problem comes up as to what one should do next. It has been my practice to repeat the examination. Often the source will be found on reexamination. If not, the question of abdominal exploration for the source of gastrointestinal bleeding comes up. This bears serious consideration, whether or not it is justifiable to explore an abdomen surgically for unexplained gastrointestinal bleeding after most careful and repeated investigations have been made and no definite diagnosis established.

Summary

In summary, a plan of investigation of patients complaining of rectal bleeding has been presented with due consideration for the patient's safety. It was demonstrated that a variety of conditions, the majority of which are benign, may cause rectal and colon bleeding. It was emphasized that this group

continued on page 665

CONGENITAL HEART BLOCK

—*Review and Report of a Case of Congenital Complete Heart Block with Rheumatic Fever, and Physiological Studies*—

ALEXANDER A. JAWORSKI, M.D. and JOHN E. FARLEY, M.D.

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TO OUR KNOWLEDGE, congenital complete heart block with acute rheumatic fever has not been previously reported. Our patient is a 12-year-old male with bradycardia first noted at the age of 14 months, who was admitted with acute rheumatic fever. During his hospital stay, numerous blood pressure readings and graphic tracings were obtained to study and record the physiological effects of posture, exercise, respiration, carotid stimulation, atropine, adrenalin, and ephedrine on the completely dissociated auricles and ventricles. Complete heart block due to congenital heart disease is a well recognized but not common disturbance of the cardiac conduction mechanism. To date the literature reveals approximately 64 reported cases of congenital heart block.

The criteria for authentic diagnosis of congenital heart block as set forth by Yater[1] are: (1) auriculoventricular dissociation by graphic methods in a young individual, (2) bradycardia at an early age, (3) absence of history of any infection which might be a cause of heart block, such as rheumatic fever, diphtheria, or congenital syphilis. Congenital cardiac anomalies and the occurrence of syncopal attacks at an early age enhance the diagnosis of congenital heart block.

In 1933, Yater, Lyon, and McNabb[2] reported an excellent summary of 44 acceptable cases of congenital heart block after a thorough review of the literature. Evidence of congenital heart disease was most common to the series, being present in 38 cases, 26 of which had patent interventricular septa. Cardiac symptoms were usually absent. The following year, Yater, Leamann, and Cornell[3] summarized the only 6 cases of congenital heart block that have been studied at necropsy. In all 6 cases, congenital defects in the septum were noted. The cause of congenital heart block is believed to be some developmental defect high in the bundle of His or possibly prenatal endomyocarditis.

Since 1934, 16 cases of congenital heart block have been reported.[4-8] Plant and Steven[9] reported 1 case of congenital heart block diagnosed by graphic methods on the fetus in utero using abdominal leads. Wendkos and Study[10] reported familial congenital complete A-V heart block in 2 siblings with no septal defects and presence of another type of anomalous conduction (Wolff-Parkinson-White syndrome) in the male parent.

Causes of complete heart block in the younger age group that must be considered besides congenital heart block are rheumatic heart disease, diphtheria, syphilis, ulcerative endocarditis, arteriosclerosis of coronary arteries, digitalis, tumor of the heart, and undetermined etiological causes.

Case Report

History—R.L., a 12-year-old white boy entered the C.V.C.H. on April 14, 1949 because of pains in his ankles and feet of three days' duration. The child was essentially well until three days prior to admission when he noted pain, tenderness and minimal swelling of the feet and ankles. On admission the pain was so severe that the child was unable to walk. The day before admission he also complained of pain in the right elbow and knee. There was no previous history of rheumatic fever, rashes, nodules, chorea, or sore throat. System review was essentially negative except for moderately severe mental retardation. Family history was noncontributory.

Past History—The past history was available from the patient's extensive out-patient record. Unfortunately, record of the fetal rate was unobtainable as the child was born at home. At the age of 14 months, the patient was admitted to the hospital because of Vincent's angina and during the entire hospital stay the pulse was recorded at 70 per minute. At 22 months, the pulse was 88 and a coarse precordial systolic murmur was heard and the question of congenital heart disease raised. Two weeks later the pulse was 60 and X-ray revealed a noticeable rounding of the aortic arch and suggested a mitral

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lesion with dilatation of said arch. Blood pressure at this time was 80/60.

At 4 years and 4 months, the pulse was 50 and the systolic murmur had been localized to the apical area and was grade 2. The E.K.G. at this time demonstrated complete A-V dissociation (fig. 1). Six months later the child was seen at the Children's

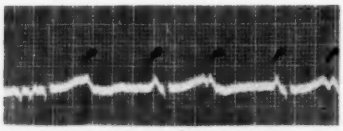

Fig. 1.—Electrocardiogram taken in 1941 at age 4 years. Complete block. Auricular rate, 100 per min.; ventricular rate, 50 per min.

Cardiac Clinic because of vague knee pains, at which time the precordial systolic murmur was still present and fluoroscopy revealed an enlarged right auricle and ventricle and a dilated aortic arch suggesting interventricular septal defect. Rheumatic fever was ruled out. During his fifth year, a reduplication of the mitral second sound and a mitral systolic murmur were noted. The child experienced mumps, measles, and whooping cough during his sixth year. Exercise tolerance tests during this year revealed persistent bradycardia sometimes as low as 48. At the age of 8 the murmur was still present with bradycardia of 58. X-ray report at this time noted some prominence in the area of the pulmonary artery. Repeat E.K.G. showed auricular sinus arrhythmia, complete heart block, and a ventricular rate of 44.

Physical Examination—On entry, positive findings were limited to the following: The child was a slim, fair complexioned, undernourished, pale 12-year-old white boy of dull mentality, in no acute distress. Heart was normal size, regular rhythm with a rate of 72, and no palpable thrill. There was a grade 2

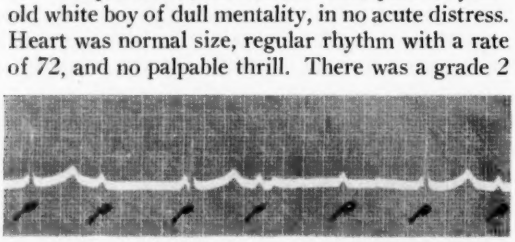

Fig. 2.—Electrocardiogram taken on admission during acute rheumatic fever. Complete block. Auricular rate, 76 per min.; ventricular rate, 33 per min.

apical systolic blowing murmur radiating to the axilla. There was a grade 1 pulmonary systolic murmur. His ankles and feet were minimally swollen, warm, and markedly tender. There was diffuse tenderness over the right elbow. No nodules were found.

Laboratory—Admission laboratory work showed negative nose and throat cultures and an essentially normal urinalysis with occasional uric acid crystals. R.B.C. was 4,610,000, Hgb was 64 per cent, W.B.C. 11,500; differential, P 60, L 40. Sedimentation rate corrected was 36 mm. in one hour (Wintrobe method). Blood Hinton was negative. Decholin circulation time, arm to tongue, was 14 seconds. Blood cultures were sterile.

Course—On admission the patient was placed on sodium salicylate, grs. 1 per pound per day, but moderate fever and a migratory polyarthritis persisted for one week. Initial pulse was 72 per minute which dropped to 33 on the second hospital day and remained at this level for one week, followed by a gradual rise to 54. Initial E.K.G. (fig. 2) was consistent with complete block, auricular rate 76 per minute and ventricular rate 33 per minute. Q-T interval was at upper limit of normal and the individual complexes were normal. X-ray and fluoroscopy were reported as negative.

The sedimentation rate gradually decreased to normal levels but frequent episodes of migratory joint pints occurred. Serum salicylate levels ranged from 200 to 250 micrograms per ml. during administration of the drug. A soft, blowing, grade 1 mitral mid-diastolic murmur was noted on the patient's fiftieth hospital day, with heart rate 52 per minute. The patient was discharged on the ninetieth hospital day and transferred to Crawford Allen Memorial Hospital.

The criteria for authentic diagnosis for congenital complete heart block in this case were adequately fulfilled. The diagnosis of rheumatic fever was established by recurrent migratory polyarthritis, carditis, continued elevated sedimentation rate, and hospital course.

During the patient's fourth week in the hospital, with continued elevated sedimentation rate and occasional migratory polyarthritis as signs of rheumatic fever activity, electrocardiographic studies and blood pressures were obtained to determine the effects of atropine, adrenalin, ephedrine, and various conditions on complete A-V dissociation. The electrocardiogram used as control for all comparison studies showed complete block with the auricular rate 72 per minute and the ventricular rate 50 per minute.

TABLE I

Effect of Atropine on Blood Pressure, Auricular and Ventricular Rates

Condition	Blood Pressure	Auricular Rate per min.	Ventricular Rate per min.
Control	118/80	66	52
2 mgm. atropine i.v.			
15 min. after atropine	118/84	140	82
30 min. after atropine	115/78	130	72
45 min. after atropine	115/80	126	70
60 min. after atropine	115/80	120	67

Atropine sulfate, the belladonna alkaloid which inhibits the postganglionic cholinergic nerves, was administered intravenously 2 mg. in 1 cc. saline and then blood pressures and electrocardiograms were taken every fifteen minutes for one hour, and results tabulated in table I. The dose of 2 mg. approaches the full paralyzing dose for the vagus nerve whose activity decreases the heart rate and increases conduction time. No change of blood pressure was noted. The ventricular rate was ele-

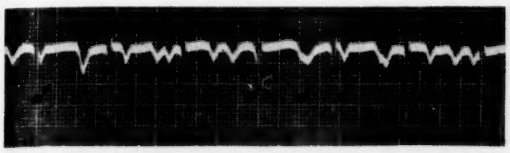

Fig. 3.—Electrocardiogram 15 minutes after 2 mgm. atropine intravenously. Complete block. Auricular rate, 140 per min.; ventricular rate, 82 per min.

vated from 52 to 82 per minute, a rise of 58 per cent at the first fifteen-minute interval (fig. 3), which is in accordance with the original work of Gilchrist,[11] who first demonstrated that the ventricular acceleration response to atropine is directly related to the initial ventricular rate. The higher the initial ventricular rate, the greater the accelerated ventricular response. The elevation of ventricular rate persisted for five hours after the atropine injection. The auricular rate increased from 66 to 140 per minute, a rise of 122 per cent. The 58 per cent increase of the ventricular rate shows definitely that the inhibitory action of the vagus is not limited to the sino-auricular node, but also affects to a moderate and lesser degree, the ventricular myocardium and its idioventricular rate.

Table II and figure 4 represent results obtained after the subcutaneous administration of 0.5 cc. of 1/1000 adrenalin, a sympathomimetic drug. The systolic tension was elevated from 100 to 120 mm.

TABLE II

Effect of Adrenalin on Blood Pressure, Auricular and Ventricular Rates

Condition	Blood Pressure	Auricular Rate per min.	Ventricular Rate per min.
Control	100/80	72	50
0.5 cc 1/1000 adrenalin s.c.			
15 min. after adrenalin	100/80	78	52
30 min. after adrenalin	110/85	92	60
45 min. after adrenalin	120/80	78	56
60 min. after adrenalin	120/80	76	54

of mercury, the diastolic pressure remained the same. The ventricular response was from 50 to 60 per minute, an increase of only 20 per cent. The auricular rate rose from 72 to 92 per minute, a rise of 28 per cent. The duration of elevated auricular and ventricular rates was maintained for slightly more than one hour.

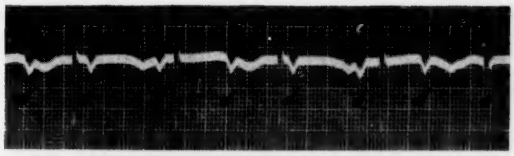

Fig. 4.—Electrocardiogram 30 minutes after 0.5 cc of 1/1000 adrenalin subcutaneously. Complete block. Auricular rate, 92 per min.; ventricular rate, 60 per min.

It appears that both the auricular and ventricular rates are increased by adrenalin in complete block. Whereas the effect of the drug on the rate of auricular contraction bears no relation to the initial auricular rate, there is an inverse correspondence between the drug induced acceleration of the ventricle and the initial idioventricular rate.[12] It would also appear that the increase in the ventricular rate following atropine administration is due to true vagal blocking, for the most part, resulting in ventricular release and cannot be explained fully by the bringing into play of a sympathetic action mechanism.

Table III represents results obtained after the oral administration of 100 mg. of ephedrine, a sympathomimetic alkaloid. There were no noticeable effects in regards to blood tensions or the idioventricular rate. The auricular rate was increased 18 per cent. According to Gilchrist,[13] although maintenance dose of ephedrine exhibits no profound

TABLE III

Effect of Ephedrine on Blood Pressure, Auricular and Ventricular Rates

Condition	Blood Pressure	Auricular Rate per min.	Ventricular Rate per min.
Control	110/78	76	50
100 mgm. ephedrine p.o.			
15 min. after ephedrine	110/76	90	52
30 min. after ephedrine	110/72	90	52
45 min. after ephedrine	110/70	88	52
60 min. after ephedrine	110/75	90	52

effects on the idioventricular rate, it is most successful in the prevention of Stokes-Adams seizures. This is probably because of its sympathomimetic supportive action on the myocardium. It would appear that the combination of a sympathomimetic drug with a vagolytic substance such as atropine for Stokes-Adams syndrome is justified.

Table IV shows the effect of various conditions such as forced inspiration and expiration, posture, exercise, sympathetic stimulation by venipuncture, and vagal stimulation by reflex due to carotid massage, on blood pressure, and on auricular and ventricular rates. The blood pressure and auricular rate varied slightly. The idioventricular rate varied minimally, but was not fixed. The only exception occurred during forced expiration whereby the ventricular rate rose from 50 to 65 per minute, a 30

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TABLE IV

Effect of Various Conditions on Blood Pressure, Auricular and Ventricular Rates

Condition	Blood Pressure	Auricular Rate per min.	Ventricular Rate per min.
Control	100/80	72	50
Forced inspiration	110/80	62	51
Forced expiration	115/90	90	65
Sitting	100/80	80	54
Standing	110/90	90	60
After exercise	120/84	70	55
After venipuncture	110/80	72	54
After carotid massage	100/70	70	49

per cent increase, and also caused the first appearance of occasional ventricular extrasystoles (fig. 5). Smith[14] reported a case of congenital complete block where forced expiration caused the complete block to be replaced by sinus rhythm. The complete A-V block was not altered at any time.

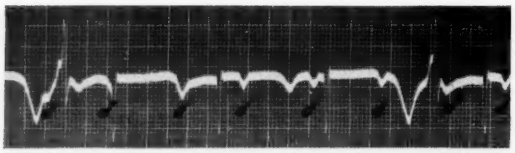

Fig. 5.—Electrocardiogram during forced expiration. Complete block. Occasional ventricular extrasystoles. Auricular rate, 90 per min., ventricular rate, 65 per min.

The prognosis for a normal life span in this patient is guarded, not because of the congenital heart block but because of the congenital heart disease, type of defect undetermined, and the superimposed rheumatic fever. However, in a case of uncomplicated congenital heart block, the prognosis is always favorable.

During the patient's height of rheumatic fever activity, a decreased idioventricular rate was observed. Later it was shown that when the vagus nerve was partly paralyzed by atropine, an increased idioventricular rate resulted. These observations may be in accordance with the postulate that the interference of conduction in rheumatic fever is caused by an increased vagotonia on a neurogenic basis rather than due to inflammatory changes in the system.[15]

Summary

The first case in the literature of congenital complete heart block with rheumatic fever is reported with associated physiological studies.

A review of the literature reveals 64 acceptable cases of congenital heart block of which 55 were complete block. The case presented, we believe, adequately fulfills the necessary criteria for positive diagnosis.

During the height of rheumatic fever activity, a decreased idioventricular rate was observed.

Physiological studies were performed to note the effects of atropine, adrenalin, ephedrine, posture, respiration, and carotid body stimulation on the blood pressure and auricular and ventricular rates. Atropine was noted to have the greatest accelerator action on the idioventricular rate. Electrocardiograms are reproduced.

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RHODE ISLAND AND THE JENNER AMENDMENT

THE REVENUE ACT of 1951 as adopted by the Congress late in October concerned most persons because of the increased taxation it featured for everyone. But there is an amendment to this act, originally offered by Senator Jenner of Indiana, which promises to cause much discussion and debate throughout the States in the next twelve-month period.

To understand the full implications of this amendment a brief history of its origin is necessary.

The General Assembly of Indiana has a law which permits public access to the records of disbursements of public welfare funds, but which contains, among other things, a prohibition upon the use of any lists or names so obtained for commercial or political purposes of any nature.

The Federal Security Agency denied to the State of Indiana some $20 million dollars, which it would receive annually, of Federal matching funds for social security programs on the basis that the Indiana anti-secrecy law violates a Federal requirement restricting the disclosure of information concerning welfare recipients.

Senator Jenner took the problem to the Congress where he was supported in what has been termed by many as a States' victory over Federal bureaucracy. But the outburst of oratory that has started and will be continued through the coming election year will undoubtedly confuse the issue far beyond the comprehension of the average citizen.

We have already read statements emanating from politicians listing the idea of publishing, or otherwise making known the names of recipients of public assistance as "abhorrent", as a "curse" originating in Indiana, as an effort to "intimidate and debase every old-age pensioner, dependent widow, etc." and to label and "victimize them as objects of scorn by snoopers."

We will read and hear of many more such ridiculous statements in the months ahead. But what are the basic issues that transcend in importance any arguments pro or con concerning the opening of welfare records?

The real issue, beyond any doubt, is that of States Rights versus Federal control over locally administered governmental programs. For years we in the States have been relinquishing power and controls to the Federal government, and in exchange for so-called Federal funds we have submitted to any and all bureaucratic regulations.

Must the States forever look to the Federal government for the financial solution of local welfare programs? The public assistance feature of the social security program was adopted by the Federal government in 1935 as a stop-gap measure to the old age and survivors insurance program. Public assistance on a needs basis was expected to disappear from the Federal scene, with public relief programs existing only at the State or local levels.

But what has happened? Current Federal commitments based on policies of the Federal Security

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Agency indicate an indefinite postponement of the disappearance of Federal public assistance plans, and meanwhile public welfare and relief programs in the various States continue to skyrocket in a time of high employment and high wages.

What about Rhode Island and the Jenner amendment?

Already we have noted agitation for legislation to bar any release of disclosure of information regarding welfare recipients. We concur wholeheartedly that such information should never be utilized for commercial or political purposes and penalties should be imposed to prevent any such abuse. But what is wrong with allowing public access to the records of disbursements of public welfare funds?

In the tenth annual report of the Rhode Island department of social welfare, issued in 1945, the public assistance was defined as a matter of "RIGHT" quite apart from "NEED." The report enumerates that under the Federal Social Security Act this basic principle, "RIGHT" to assistance, was established, and the "Public Assistance Law of Rhode Island likewise recognizes assistance to those in need as a matter of "RIGHT." The Law specifically abolishes the use of the term "pauper" and on the positive side reads:

> "Section 1. It is the purpose of this act to provide that access to public assistance shall be available to any person in Rhode Island who is in need.
>
> "Section 2. Eligibility for Public Assistance. Public assistance shall be provided under this act to any needy individual who has not available sufficient income and resources to maintain a reasonable standard of health and well-being."

The "RIGHT" of the individual to receive financial aid from his fellow man through tax funds calls for corresponding "RIGHTS" for the taxpayer to know clearly and beyond any doubt that the assistance granted is justified, to know more clearly than is now the case the exact norms used to determine who is a "needy individual", and to know that the rules and regulations, including the norms adopted by the social welfare department, are in no way aborted.

In the last month of the fiscal year ending June, 1948, the Rhode Island state social welfare department reported 1 out of every 25 residents to be receiving services of one kind or another from the department. The following year the estimate was about 1 of every 17 residents receiving some aid.

In view of this continuous increase of dependency for some aid from government, federal or state, the taxpayers who foot the bill have ample reason to call for a fuller explanation of where their money is going and to demand that state and local welfare departments re-examine their policies, as well as their rolls, in order to operate to the fullest possible extent, without causing suffering, within existing appropriations.

The medical profession of Rhode Island has contributed far more than any group to aid the poor and the disabled. In spite of the inflation that has affected everyone the physician has continued to render medical care to the welfare patient in this State for the same payment that has been given for years, meanwhile watching charges for all other services to these people rise with the changing economic order.

We will always be willing to aid the person in need. We will always defend the right of the needy to public assistance. But we see no reason why there should be any secrecy about the matter.

THE SOCIETY AND THE LEGISLATURE

The New Year signals, among other things, the start within a few days of another session of the Rhode Island General Assembly.

The activities of the legislature in recent years encompass an increasing number of bills affecting the health and welfare of the people of Rhode Island. As a mechanism to review these proposals, and to acquaint the legislators and the profession about them, the Society has for years had a standing committee on Public Laws.

It has been the policy of this committee to review all legislation, and in particular that which affects the health of the people of the state. The task is an arduous one, and one that often demands prompt and vigorous action by the Committee when proposals are hastily introduced and moved rapidly through either the House or Senate with little opportunity for public hearing. The mere title of a proposed act often gives no inkling to the purpose for which it is introduced, or the results which its ramifications may achieve.

The Committee on Public Laws acts with the benefit of legal counsel when such advice is necessary. It always seeks to act in the interest of the people who will be affected by the legislation. It always seeks to interpret and present what it considers to be the general opinion of the medical profession.

But in this task the Committee warrants the support of the membership of the Society. The mere existence of the committee is no justification for any attitude that individual physicians need not concern themselves with what happens at the State House, or in Washington. Every citizen, and the physician in particular, must take a greater individual interest in the work of the law-making bodies, must be informed of proposals, and must not hesitate to express sound and just criticisms or approvals, as the

case may be, on any act presented to the General Assembly.

In our October issue we reported on the recommended improvements to the workmen's compensation law. We look to the study commission that is to report in February to give the recommendations of the Society proper consideration in view of their importance and honest presentation. Regardless of the report of the study commission, we look to our own membership to be informed on these and other amendments that may be introduced, and to be prepared to discuss them with legislators from their districts.

141st ANNUAL MEETING

The announcement by the Committee on Scientific Work that the 141st annual meeting, to be held in May 1952, will include an evening session at the medical library should win wide approval from the membership. In recent years our annual session has been confined to the Wednesday and Thursday day meetings, with the annual dinner highlighting the evening program on the Wednesday.

Under the new plan for the 1952 meeting the first session is scheduled for the Tuesday night, thus permitting many members to travel to Providence who might not be free to do so during the days ensuing. The session will include the usual Wednesday and Thursday afternoon lectures, with the Chapin oration on the first afternoon and possibly the Fiske Essay presentation as a feature of the final day.

The dinner meeting will be shifted from Wednesday night to Thursday night, thus making for a fitting climax to the three-day postgraduate program that the committee is now in the process of completing.

The preparation for the annual meetings of the Society entails a tremendous amount of work of which the majority of our members are unaware, we are sure. The reward for the effort comes in a large and attentive audience. We recommend, therefore, that every member check his 1952 calendar now to reserve the dates of May 6-7-8 for visits to the Medical Library.

DIABETES CAMPAIGN

The conclusion of the third diabetes detection campaign to be sponsored by the Society's committee on diabetes, with the aid of public and private agencies, again demonstrates the importance of concerted action in public health education. The first year the Society carried the work alone. Last year several community agencies were asked to assist and the campaign program was broadened.

This year the largest distribution ever of literature and testing materials was made possible by the splendid cooperation of the state Department of Employment Security and the State Health Department through its divisions on industrial nursing and nutrition. More than three thousand posters, sixty thousand leaflets, and seventy thousand specimen bottle labels were distributed.

The response to this educational program by the industrial concerns of Rhode Island has been most encouraging. Industrial physicians and industrial nurses have carried the message to thousands of workers, and this year have had support from management to a greater extent than ever through the appeal of the department of employment security.

The tremendous amount of work undertaken by the committee of the Society to carry out this educational program is unknown to the public or to most of our own profession. It stands as a tribute to the many members who give willingly of their time and energy to further health programs. It also illustrates clearly how an organized medical society contributes to the general welfare of the community.

CIVILIAN DEFENSE TEST

The civilian defense test of November 4, publicized as the largest of its kind to be attempted in a metropolitan area in the country since World War II, proved again that the medical profession is one of the best organized groups and farthest advanced in disaster planning.

The work of the mobile first aid teams in responding to the theoretical emergencies at incidents arranged in connection with the November 4 demonstration was outstanding. Equally effective was the staffing of the emergency hospitals at the three high schools where with limited equipment physicians and nurses stood by for two hours far from the public gaze, and then "treated" the "injured" persons transported to their temporary hospital.

For several years the medical profession has expressed its concern about disaster planning in our communities. In the wake of the memorable Cocoanut Grove fire in Boston, and the circus disaster in Hartford, lectures were held locally with physicians from these two cities describing how they met the emergency, and how preparations must be made for similar disasters.

The Society has polled the membership relative to assignments members may have at hospitals, with the Red Cross, etc., and anyone who has not notified the disaster committee should do so promptly. Ultimately it is hoped that every physician in Rhode Island will have a definite disaster assignment, and thereby be part of an organized system to cope with public catastrophes.

The planning task is not an easy one. Every physician should cooperate with the disaster committee of the State Society, and with his local district society committee. A good start has been made, as was demonstrated on November 4, but we must not relax in our efforts until we have completed our organization for civilian defense.

continued on next page

COMPULSORY B... C....

In this country the letters BC have come to be recognized by increasing numbers as an abbreviation for *B*lue *C*ross.

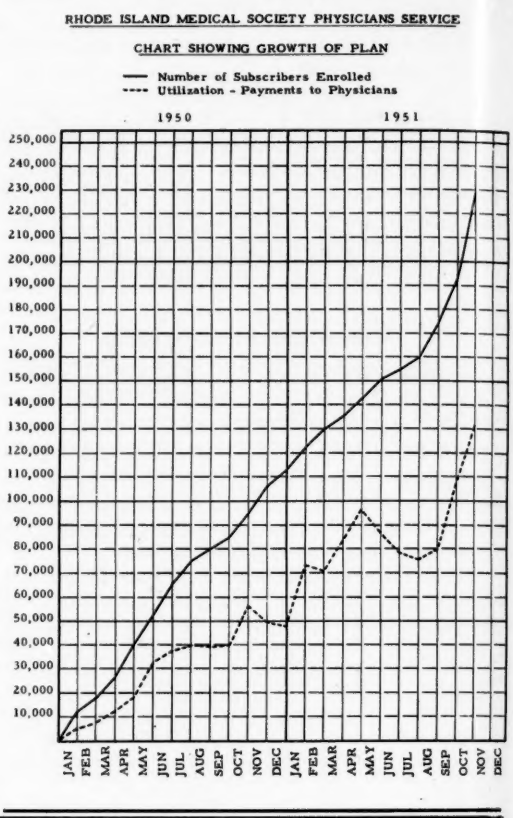
In Canada the letters BC are generally thought of as *B*ritish *C*olumbia, and it is in this province that a compulsory hospital insurance program has been in effect.

In the United States by the voluntary method more than 80 million persons have secured hospital protection through Blue Cross and group insurance programs.

In British Columbia the latest report reveals that the compulsory program is "contentious" and will probably have to be drastically revised because it has proved unsatisfactory. As a means of stabilizing the cost of the insurance the government ordered hospitals to operate on fixed budgets which it then arbitrarily trimmed. As a result of the budget fixing the government is virtually in the hospital business and everywhere, according to reports of a special legislative commission, there is the protest that hospitals are unable to maintain their services according to established standards.

In addition, business and industrial interests of British Columbia's largest city, Vancouver, are reported as stating to the provincial government that the compulsory hospital insurance program threatens the province's economy with ruin.

As a solution we suggest that our Canadian neighbors amend our slogan to read "the voluntary way is the North American way."



(The Council on Pharmacy and Chemistry of the American Medical Association has adopted the following statement of Actions and Uses and of Dosage for publication in connection with a description of Banthine Bromide for inclusion in New and Nonofficial Remedies)

METHANTHELINE BROMIDE.—*Banthine® Bromide (Searle)*

β-diethylmethylaminoethyl 9-xanthenecarboxylate bromide

Actions and Uses.—Methantheline bromide, a parasympatholytic agent, produces both the peripheral action of anticholinergic drugs such as atropine and the ganglionic blocking action of drugs such as tetraethylammonium chloride. Tolerated amounts of methantheline bromide exert side effects typical of atropine-like drugs, but cause less tachycardia, and also less postural hypotension than does tetraethylammonium chloride. Toxic doses produce a curare-like action at the somatic neuromuscular junction.

Clinical studies indicate that the drug effectively inhibits motility of the gastrointestinal and genitourinary tracts and, to a variable degree, diminishes the volume of perspiration and salivary, gastric and pancreatic secretions. It also decreases mucoprotein secretion. Like atropine, it produces mydriasis and cycloplegia when applied locally to the eye or administered systemically, but until more clinical evidence becomes available, its local use for this purpose is not recommended. The value of the drug for preventing abnormal cardiac reflexes through the vagus during thoracic surgery, or as an agent for routine preoperative medication in place of atropine, requires further investigation before final conclusions can be reached.

Methantheline bromide is indicated for clinical use whenever anticholinergic spasmolytic action is desired, provided it is not contraindicated because of its atropine-like characteristics or because of a patient's intolerance to the unavoidable side effects of such therapy. It is useful as an adjunct in the management of peptic ulcer, chronic hypertrophic gastritis, certain less specific forms of gastritis, pylorospasm, hyperemesis gravidarum, biliary dyskinesia, acute and chronic pancreatitis, hypermotility of the small intestine not associated with organic change, ileostomies, spastic colon (mucous colitis, irritable bowel), diverticulitis, ureteral and urinary bladder spasm, hyperhidrosis or control of normal sweating which aggravates certain dermatoses, and control of salivation.

Methantheline bromide produces some degree of cycloplegia and mydriasis in therapeutic doses and therefore should not be administered to patients with glaucoma. It sometimes decreases the ability to read fine print. Xerostomia (dryness of the mouth) is a common, sometimes transient, side effect. Urinary retention of varying degree may occur in elderly male patients with prostatic hypertrophy, and some patients may have difficulty emptying the rectum. Patients with edematous duodenal ulceration may experience nausea and vomiting during initial administration of the drug. These patients should take only liquids during the institution of drug therapy. All patients should be advised of the possible occurrence of side effects. Overdosage sufficient to produce a curare-like action may be counteracted by prompt subcutaneous injection of 2 mg. of neostigmine methylsulfate.

Dosage.—Methantheline bromide is administered orally or parenterally by either the intramuscular or intravenous route. Parenteral administration is not advised for patients able to take the drug orally. The average initial adult dose, oral or parenteral, is 50 mg. For patients with considerable intolerance, 25 mg. may be employed. In the management of peptic ulcer, a beginning schedule of 50 mg. three times daily before meals and 100 to 150 mg. on retiring is suggested. However, the usual effective dose is 100 mg. four times daily, although some patients may require more or less than this amount. The dosage may be increased to tolerance, using dryness of the mouth as a guide, and adjusted to meet the individual response of patients. Maintenance dosage in peptic ulcer is usually considered to be about one-half the therapeutic level. In the management of other hypermotile or hypersecretory states, the dosage should be adjusted to the smallest amount which will relieve the symptoms. When spastic conditions are secondary to inflammatory or other organic lesions, therapy directed toward the cause should be employed whenever possible.

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Tablets Banthine Bromide: 50 mg.
Ampuls Banthine Bromide: 50 mg.

DOCTORS AND THE NEW TAX BILL

ROBERT E. JACOBSON, ESQ.

THE AUTHOR. *Robert E. Jacobson, Esq., of Providence, R. I. Attorney; Member of firm of Edwards & Angell.*

THERE IS really nothing in the new 1951 Revenue Act that has any special or unusual impact on doctors as a class. But in common with the rest of us, they are, of course, very much interested in the new rates. Generally speaking, taxes for 1952 will be 11¾% higher than they would have been on the same amount of income in 1951 if the new Act had not been passed. Not only that,—Congress also willed that the new rates be effective November 1, 1951, thus applying to approximately one-sixth of 1951 income. But instead of compelling or allowing taxpayers to segregate income and deductions before and after November 1, it accomplished approximately the same result by modifying the rates for the entire year 1951, so that 1951 taxes also will be approximately 2% higher than they would have been had the new Act not been passed.

To bring income tax withholding into line with these increases in rates, the withholding rate is increased from the previous 18% to about 20%. This change takes effect with respect to payments of wages made on and after November 1, 1951, regardless of the period in which the work was performed.

The federal cigarette tax goes up one cent, from seven cents to eight, the federal tax on gasoline goes up from 1½ cents to 2 cents a gallon, the excise tax on passenger autos goes up from 7 to 10%, and the tax on automobile parts and accessories rises from 5 per cent to 8% of the manufacturer's price. Taxes on sporting goods other than fishing equipment are increased from 10 to 15%, but the tax on fishing equipment remains unchanged, at 10%. These increases will be passed on to the consumer in the price of articles.

Some Provisions Favorable

Some provisions of the new law give the taxpayer a break. A change which will be a great relief for many who long ago would have sold their homes and bought new ones had it not been for the tax situation is a new capital gains provision, under which a person who sells his residence and buys a new one within a year before or after his sale pays no immediate tax on any gain from the sale of his old residence *unless he receives more for it than he pays for the new one.* This is simply a postponement of profit,—the old cost basis carries forward and becomes the cost basis or part of the cost basis of the new house, depending on the relation between the sale price of the old house and the cost of the new. The new provision will apply to the sale of a taxpayer's principal residence made after December 31, 1950, whether the new residence was bought before or after that date. But it applies only to one's principal residence and the provision can be availed of only once in a single year.

An unmarried person who qualifies as head of a household now gets a somewhat better deal than the ordinary unmarried person. Details are too complicated for synopsis here, but he gets a tax benefit similar to, though not as great as, that given by the income-splitting provision to married couples filing joint returns.

Hitherto an election by husband and wife to file joint or separate returns, and an election as between actual deductions and "standard" deductions were final and irrevocable, once the return was filed. If an audit or other newly discovered circumstances showed that the election was all wrong, there was nothing one could do about it. Now, subject to certain technical safeguards, such elections can be changed by the taxpayer if that proves advantageous. Change of election as to join or separate returns can be made as to 1951 and following years. A change of election as between actual and "standard" deductions can be made as to 1950 and following years.

Medical Expenses

Doctors may be indirectly affected to some degree by the provision under which persons over sixty-five will get new benefits in the way of deductions for medical expenses. Until now deductions have been allowed only for medical expenses in excess of 5 per cent of adjusted gross income. Hereafter, the "in excess of 5 per cent" clause will not apply to those whose age is over sixty-five. All medical expenses, subject to the top limit, will be deductible if either husband or wife is over 65. The top limit of the allowance remains unchanged,—$1250 for

continued on page 671

DISTRICT MEDICAL SOCIETY MEETINGS

KENT COUNTY MEDICAL SOCIETY

The regular monthly meeting of the Kent County Medical Society was held at the Kent County Memorial Hospital in Warwick on Tuesday, September 18, 1951.

The meeting was called to order by the President, Dr. Jean M. Maynard, at 9:15 p.m. The minutes of the May meeting were read and approved.

A report from the Insurance Committee by Dr. Rocco Abbate was made with the recommendation that the Kent County Medical Society accept and endorse, in association with the Rhode Island Medical Society, the group plan of Health and Accident Insurance as offered by the Derosier Agency.

Dr. Young moved that this communication be accepted as received from the Insurance Committee and incorporated in the minutes of the meeting.

The motion was seconded and carried.

Dr. Abbate moved that letters from Dr. Arestad of the A.M.A. Council on Education re the Kent County Memorial Hospital and from Mr. Buch, attorney-at-law, re the Miller Fund, be consigned to the files.

This motion was seconded and so voted.

Applications, one for Associate membership and two for active membership in the Kent County Medical Society, were received and turned over to the Board of Censors. They are from Drs. Richard Kraemer, Charles B. Round, and Peter E. Canale.

A letter from Dr. Merrill Gibson, Chairman of the Disaster Committee of the Rhode Island Medical Society, was read. It stressed the importance of action by the Society to coordinate with civilian defense organizations in a state-wide program.

After discussion Dr. Abbate moved that the chair nominate a one-man Disaster Committee to sit in with the Rhode Island Medical Society Disaster Committee for further planning and organization in Civilian Defense.

The motion was carried, and Dr. Maynard appointed Dr. Hardy as a committee of one to serve with Dr. Gibson.

Communications from Dr. Merlino advising the Society of his resignation from the Rhode Island Tuberculosis Control Division, thanking its members for their past cooperation, and an invitation to the John F. Kenney Memorial Clinic Day of the Pawtucket Memorial Hospital were ordered received and placed on file.

Dr. Maynard then introduced the speakers of the evening, Drs. Russell Hunt and Stanley Davies, who discussed the radiological and clinical importance of pelvimetry.

A rising vote of thanks was given both speakers for their excellent presentation of an interesting phase of obstetrics.

The meeting was adjourned at 11:10 p.m.

Attendance was 19.

Respectfully submitted,

JEANNETTE E. VIDAL, M.D., *Secretary*

PAWTUCKET MEDICAL ASSOCIATION

A regular monthly meeting of the Pawtucket Medical Association was held October 18, 1951, at the Nurses Auditorium, Memorial Hospital.

The meeting was called to order by the President, Dr. Kieran W. Hennessey, at 12:15 p.m.

The minutes of the previous meeting were read by the Secretary and accepted.

A communication from the Fluoridation Committee of the Pawtucket Dental Society was read. This asked for the Association's endorsement of their fluoridation program.

A motion by Dr. Alfred Melucci to endorse the program was carried.

Dr. Hennessey, a member of the Rhode Island Diabetes Committee, discussed the Diabetes Detection Week of 1951, and asked for the cooperation of the membership.

Dr. Hennessey also commented on the disappointing City Civilian Defense meeting held recently. He stated, however, that plans are going ahead and that volunteers are still being recruited.

In a periodic enrollment drive, Mr. E. Purinton spoke concerning the Loyalty Group Health Insurance of the Association. He offered an increase in weekly benefits from the present $50.00 to $75.00 for an additional $36.00 a year, provided that thirty physicians re-enrolled or one-half of the present number applied for increases.

Dr. Ernest K. Landsteiner was then introduced by the President, and he discussed the "Radiation on Syndrome" following atomic bombing. He de-

continued on page 662

PAWTUCKET MEDICAL ASSOCIATION

concluded from page 660

scribed the types of radiation, the systemic effects, and the treatment.

Luncheon was served.

Attendance was twenty-eight.

The meeting was adjourned at 1:20 p.m.

Respectfully submitted,

HRAD H. ZOLMIAN, M.D., *Secretary*

PROVIDENCE MEDICAL ASSOCIATION

The regular monthly meeting of the Providence Medical Association was held at the Medical Library Monday, November 5, 1951. The meeting was called to order by the President, Dr. Louis I. Kramer at 8:30 p.m.

With the approval of the members present, the reading of the minutes of the previous meeting was omitted.

Dr. DiMaio, Secretary, reported that he was in receipt of obituary tributes on the following Committees:

Drs. Frank A. Cummings and Parker Mills, in tribute to the late Dr. Edward J. Black.

Drs. Frederic J. Burns and Michael DiMaio, in tribute to the late Dr. Alvah H. Barnes.

Drs. Louis I. Kramer and Robert G. Murphy, in tribute to the late Dr. Charles E. V. Kennon.

These tributes will be added to the Association's records, and a copy will be transmitted to the family of each physician.

Dr. Kramer introduced Mr. Sydney Gifford, a Providence attorney who spoke briefly on the needs of the YMCA in greater Providence and of the financial campaign to be conducted for that organization to improve its property and equipment. Mr. Clifford urged the support of the medical profession in this campaign.

The President announced that the new procedure of presenting certificates of membership to newly elected members would be introduced at this meeting. He called upon Dr. Robert G. Murphy, sponsor of Dr. Donald Larkin. Dr. Murphy presented Dr. Larkin to the membership, and Dr. Kramer awarded him his certificate certifying that he was elected to active membership.

The same presentation procedure was followed with Dr. Emery M. Porter introducing Dr. H. Raymond McKendall, Dr. Kramer introducing Dr. Francis Leo McNelis, and Dr. Frederic Burns introducing Dr. P. Joseph Pesare.

Dr. Kramer reported briefly on the Diabeties Detection Campaign to be conducted the week of November 11-17, and he asked for the continued cooperation of the Association.

Dr. J. Merrill Gibson expressed the appreciation of the Mayor and the Providence Civil Defense Council to the members of the Association who participated in the CD test held on Sunday, November 4. Dr. Gibson reviewed the work of the Disaster Committee of the Association in connection with the Civil Defense Test.

Dr. Kramer introduced as the first lecturer Dr. Maurice Silver, who spoke on the "Management of Herniated Intervertebral Discs".

Dr. Silver showed a short movie on the diagnosis of herniated discs. The movie emphasized the neurological findings associated with herniated discs. It was pointed out that 90% of all herniated intervertebral discs occurred at L-4 and L-5.

Contrast myelography was described as a simple and safe procedure and that pantopaque, the contrasting medium, is an innocuous material.

The speaker pointed out that a rectal examination is essential in any patient suspected of having a herniated disc.

The second lecturer was Dr. James L. Poppin of Lahey Clinic, who discussed Intracranial Aneurysm.

Dr. Poppin said that 10% of all intracranial lesions are due to aneurysm. The classical symptoms are either occipital headache or severe frontal headache, more on one side than on the other, coma and third nerve paralysis. The condition occurs more often in females than in males and is more commonly found on the left side of the brain than on the right. Dr. Poppin also pointed out that most aneurysms are inherited but that some are related to arteriosclerosis and some to hypertension.

The speaker stated that arteriography is necessary for diagnosis and treatment of intracranial aneurysm.

Thirty-five per cent (35%) of patients with intracranial aneurysm die with initial attack, thirty per cent (30%) have a second attack two to three weeks after the initial episode, fifty per cent (50%) who get over the initial catastrophe succumb in the subsequent attack.

The lectures were discussed by Dr. Hannibal Hamlin, Dr. Harold Williams, Carroll Silver, Thomas Perry, and others.

The meeting adjourned at 11:00 p.m.

Respectfully submitted,

MICHAEL DIMAIO, M.D., *Secretary*

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PROLUTON PRANONE

PERNICIOUS ANEMIA IN OLD AGE

concluded from page 644

The eventual causes of vitamin B-12 deficiency in the aged may be summarized as follows: 1. Old people suffering often from anorexia, especially if they live alone or have no adequate care, tend to eat too little food, resulting in an insufficient intake of essential food types. A sufficient caloric intake is useless if the ration is poor in quantity of essential vitamins. Whatever may be the reason we should not forget that if overeating appears to be a rather frequent danger for the aging, undereating may often endanger the life of the aged. 2. Insufficient assimilation of vitamin B-12 will occur, influenced by mastication difficulties, gastric achylia and pancreatic disorders so common among the aged. As far as concerns the intrinsic factor, we may suppose that this facilitates the absorption of vitamin B-12 which, in the modern concept is identical with the extrinsic factor, and for this reason, the oral administration of vitamin B-12 appears to be effective provided it is associated with that of the intrinsic factor-containing substances. 3. It may be further postulated that the inability of the liver and perhaps of other organs to store vitamin B-12 is associated with the factors precipitating the development of Pernicious Anemia in the aged. It has been recognized that a hyperchromic and macrocytic anemia can be encountered in the different hepatic diseases (Shumacker, Jr., Rosenberg and Walters, Wintrobe). On the other hand some hepatic lesions have been found in patients suffering from Pernicious Anemia in relapse (Bethel and Harrington, Boyden and Layne, Erna Vinogradova). I have observed in them the presence of a definite hepatic dysfunction. Especially frequent and demonstrable were the changes in the metabolism of the bile acids. Further the records of our investigations of healthy centenarians which may be regarded as specimens of normal senility showed that the diminished ability to store nutritional reserves in the organ depots, and first of all in the liver, presented the typical peculiarity of their metabolism (Basylewycz). Yadorsky and al. have shown that the content of vitamin C in the liver underwent a progressive decrease with advancing age. 4. Finally, it may be assumed that there is a certain impairment of the cellular tissue's ability to utilize vitamin B-12 in old people, but we have no concrete facts in favour of this hypothesis.

(An extensive reference list for this article is not published, but it is available to any reader upon request. . . . The Editor)

RECTAL BLEEDING

concluded from page 648

of patients must be considered to have a serious organic lesion until proven otherwise. It was established that a careful history, and inspection of the anal orifice and perianal area, digital examination of the anal canal, anoscopic and sigmoidoscopic examinations of the anal canal, the rectum, and rectosigmoid regions, and radiographic studies of the colon when indicated, will reveal the source of such bleeding in almost all cases. It is important to assure patients with rectal bleeding following examinations of this type, that the cause of their rectal bleeding has been found and can be relieved. It is possible to assure these patients that they do not have cancer, however, impress upon them that there is no assurance that malignant disease may not develop in the future.

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NEW FELLOWS OF ACS

At the 37th annual clinical congress of the American College of Surgeons, held in San Francisco in November, 903 initiates were received into fellowship, including the following from Rhode Island:

E. Arthur Catullo	Providence
Abraham Horvitz	Providence
Thaddeus A. Krolicki	Providence
*Angelo Scorpio	Providence

**Died Nov. 14, 1951*

COMPONENT SOCIETIES BY MEDICAL DISTRICTS — 1951

SOCIETY	DELEGATES	COUNCILLOR	OFFICERS	MEETING
Kent County Medical Society	Rocco Abbate Peter Erinakes	Arthur Hardy	*President*, Jean M. Maynard *Vice Pres.*, Edmund T. Hackman *Secretary*, Jeannette E. Vidal *Treasurer*, John A. Mack	3rd or 4th Tuesday of each month
Newport County Medical Society	Frank Logler Donald B. Fletcher	Samuel Adelson	*President*, Henry W. Brownell *1st Vice Pres.*, Robert L. Bestoso *2nd Vice Pres.*, John M. Malone *Secretary*, Osmond Grimes *Treasurer*, Norbert Zielinski	4th Tuesday of every other month, starting September
Pawtucket Medical Association	James P. Healey Henry J. Hanley Henry E. Turner Edward E. Turner Edward E. Trainor Duncan H. C. Ferguson	Earl J. Mara	*President*, Kieran Hennessey *Vice Pres.*, Laurence Senseman *Secretary*, Hrad H. Zolmian *Treasurer*, Harold A. Woodcome	3rd Thursday of every month
Washington County Medical Society	Louis Morrone Samuel Nathans	John P. Jones	*President*, Albert C. Henry *Vice Pres.*, Julianna Tatum *Secretary*, Samuel Farago *Treasurer*, Samuel Farago	2nd Wednesday of every 3 months, starting Oct.
Bristol County Medical Association	Charles Dunbar	Charles Millard	*President*, Charles Millard *Vice Pres.*, C. Paul Bruno *Secretary*, Charles Dunbar *Treasurer*, Robert Drew	3rd Tuesday of each month
Woonsocket Medical Society	Victor H. Monti Saul Wittes	Alfred King	*President*, G. A. Crepeau *Vice Pres.*, Emil Kaskiw *Secretary*, Euclide L. Tremblay *Treasurer*, Paul Boucher	No fixed date
Providence Medical Association	Charles J. Ashworth Robert Baldridge J. Murray Beardsley Frederic J. Burns Francis H. Chafee Peter P. Chase Frank B. Cutts Harry E. Darrah	Frank Dimmitt William P. Davis Donald DeNyse John Dillon Michael DiMaio William J. Fischer David Freedman	*President*, Louis I. Kramer *Vice Pres.*, Frederic J. Burns *Secretary*, Michael DiMaio *Treasurer*, Robert G. Murphy Herman Grossman Peter Harrington William Horan Russell Hunt Louis I. Kramer Edward McLaughlin Daniel Troppoli	1st Monday of every month; Oct.-May inclusive Robert Murphy John Myrick J. C. O'Connell E. O'Reilly A. L. Potter Louis Sage George W. Waterman

SOCIETY	OFFICERS	ANNUAL MEETING
Rhode Island Medical Society 1951-52	*President*, Herman A. Lawson *Vice Pres.*, Edward S. Cameron *Pres. Elect.*, Albert H. Jackvony *Secretary*, Morgan Cutts *Treasurer*, Earl F. Kelly *Ass't Treas.*, John A. Dillon	May 13, 14, 15, 1952 at Rhode Island Medical Society Library, 106 Francis Street Providence 3, R. I.

CHAIRMAN, STANDING COMMITTEES

Peter P. Chase	Scientific Work and Annual Meeting
Charles L. Farrell	Public Policy and Relations
James H. Fagan	Public Laws
Marshall Fulton	Postgraduate Education
Nathan Chaset	Medical Economics
Stanley Sprague	Industrial Health
Irving A. Beck	Library
John E. Donley	Publications
Robert T. Henry John P. Jones	Auditors

BOOK REVIEWS

ATLAS OF HUMAN ANATOMY. Barry J. Anson, Ph.D. 1950. $11.50. W. B. Saunders Co., Phila.

In this beautifully printed and sumptuously illustrated volume Professor Anson has added another to the long list of anatomical atlases available to students and practitioners of Medicine. During the progress of laboratory teaching, it became the desire of the author to prepare an atlas of gross anatomy whose pictorial content would be based upon a series of new dissections and upon variable morphological features statistically presented. In carrying out this undertaking the drawings were accurately prepared by the artists; they were neither warped to conform to preconceived stereotyped concepts of human morphology, nor simplified to serve as transitory chartings for a laboratory excursion.

Accordingly, the Atlas was prepared in such a way as to be continuously useful to the reader from his days as a novice through those in which his responsibilities as a doctor require a reference book based, not upon perennially copied figures, but upon the artists' unbiased portrayal of dissections. The Atlas was originally planned as an undertaking to be carried out by the author and the artists; but it soon assumed a wider scope which led to the inclusion of some of the anatomical researches of the author's graduate students. The result is a volume of composite workmanship illustrated by several artists.

Upon opening this Atlas for the first time, one observes several visual and linguistic novelties. First of all, the structures are labelled, for the most part, with their Latin names, the learning of which may, perhaps, stretch the pia mater of the tyro who is very likely to be equipped with small Latin and no Greek. It may perplex him momentarily to see an arrow pointing to a small black line described as the "groove for attachment of the lamina perpendicularis oss. ethmoidalis and the cartilago septi nasi." This, however, is a small matter. Another arresting novelty is the illustration of arteries in black instead of in the traditional red to which we have long been accustomed in anatomical drawing. But after a little effort and some use of the Atlas, one does not mind the absence of color. The illustrations of the muscles throughout the body are very beautifully done and depict not only their form, but facilitate also the understanding of their functions. This is especially true of the sections dealing with the muscles and the other structures of the thigh, the gluteal region, the male and female pelvis and the perineum. Professor Anson has supplied us with interesting studies of anatomical variations not to be found in other atlases, for example, those of the stomach, the duodenum and the liver, together with those of various nerves and not a few arteries.

This new Atlas represents the fruition of what must have been an enormous amount of patient and enthusiastic labor. It would have pleased John Hunter and should find its place as a valuable addition to the library of every physician, young or old, who desires to keep abreast of contemporary knowledge in the study of anatomy.

JOHN E. DONLEY, M.D.

PRACTICAL GYNECOLOGY by Walter J. Reich & Mitchell J. Nechtow. J. B. Lippincott Company, Philadelphia. 1950. $10.00.

Practical Gynecology is exactly what its title purports it to be. No attempt is made to treat of gynecology in all its details; however, the office gynecologist will find a sound presentation of the problems he will face most frequently in his daily routine.

There is added emphasis on the psychosomatics of gynecology. There are chapters on endocrinology and of the early detection of cancer, including cytology and aspiration biopsy. The chapters on vaginitis and ectopic pregnancy are especially interesting. The presentation of information throughout the book is done in an exceedingly modest fashion.

This book may be well recommended to supplement a library in this field and is not intended as a treatise of general gynecological subjects.

J. P. MCCAFFREY, M.D.

A TEXTBOOK OF MEDICINE, edited by Russell L. Cecil, M.D., Sc.D., and Robert F. Loeb, M.D. 8th Edition, Illustrated. W. B. Saunders Company. 1951. $12.00.

In this writer's review of the 1947 edition of Cecil's "Textbook of Medicine" the observation

continued on page 670

when other external therapy seems to get **nowhere...**

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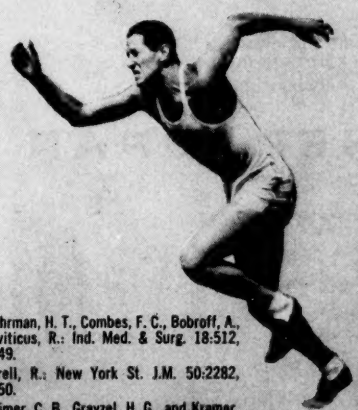
the pioneer external cod liver oil therapy

in **wounds**
(especially slow healing)
burns
ulcers
(decubitus, varicose, diabetic)



Study[1], after study[2] after study[3] corroborates the "notable"[1] success of Desitin Ointment in easing pain and stimulating smooth tissue repair in lacerated, denuded, chafed, irritated, ulcerated tissues—often in stubborn conditions where other therapy fails.

Protective, soothing, healing, Desitin Ointment is a non-irritating, blend of high grade, crude Norwegian cod liver oil (with its unsaturated fatty acids and high potency vitamins A and D in proper ratio for maximum efficacy), zinc oxide, talcum, petrolatum, and lanolin. Does not liquefy at body temperature and is not decomposed or washed away by secretions, exudate, urine or excrements. Dressings easily applied and painlessly removed. Tubes of 1 oz., 2 oz., 4 oz., and 1 lb. jars.

write for **samples** and literature

DESITIN CHEMICAL COMPANY
70 Ship Street, Providence 2, R. I.

1. Behrman, H. T., Combes, F. C., Bobroff, A., Leviticus, R.: Ind. Med. & Surg. 18:512, 1949.
2. Turell, R.: New York St. J.M. 50:2282, 1950.
3. Heimer, C. B., Grayzel, H. G., and Kramer B.: Archives Pediat. 68:382, 1951.

A TEXTBOOK OF MEDICINE

concluded from page 668

was made that a study of successive editions of a popular textbook of medicine affords a striking index of progress in the science of medicine. Though only a short time has elapsed since the 1947 volume, so many additional advances have occurred, that in many respects the earlier edition has become obsolete.

It is also evident that the increasing complexities of modern medicine have become too much for a single editor, even one so able as Dr. Cecil, to cope with alone. In this edition Dr. Robert F. Loeb has become co-editor and there are also three associate editors.

The progress of medicine is best seen in the necessity of adding entirely new articles, such as the one on Vitamin B12, by Dr. Tom D. Spies, who delivered the Chapin Oration here a few years ago. The mis-use of a therapeutic advance is illustrated by another new article on chronic amphetamine poisoning dealing with the thrill hungry benzedrine addicts. Parallel advances in other fields of science are directly responsible for prominent sections on aviation medicine and radiation injury.

It is difficult critically to evaluate a text so voluminous in context, so encyclopaedic in subject, and so varied in authorship. From minimal sampling one can make a few critical observations. A number of diseases (gout, irritable colon, peptic ulcer) have a disproportionate amount of space devoted to detailed dietary menus, which one really does not look for in a general text of this type. Diet manuals should provide the source of such lists for actual dispensing to patients. In contrast, the article on diabetes mellitus by Robert F. Loeb stresses the general principles of diet therapy without cluttering up the text with menus. Parenthetically, this article gives an excellent, up-to-date consideration of the physiological basis of diabetes mellitus and much sound practical advice in its management. In the discussion of erythema nodosum, no mention of pulmonary lesions, especially the hilar adenopathy, is made.

In general, the new Cecil is, like its predecessors, a very inclusive and reasonably current single volume medical reference and text.

IRVING A. BECK, M.D.

TECHNICAL METHODS FOR THE TECHNICIAN by Anson L. Brown, B.A., M.D. 4th edition. Anson L. Brown, Inc., Columbus, Ohio, 1951. $10.00.

An ideal book for teacher, student or technician in class room or laboratory. A book that is certainly an easy, ready source of basic reference material.

KURT C. WAGNER

DOCTORS AND THE NEW TAX BILL

concluded from page 658

each person, including himself, whose personal exemption the taxpayer can claim.

Another liberalization, which may give a good many college students a chance to work a little longer during vacation and make an extra hundred dollars, is a provision which permits a dependent to have a gross income of up to $600 a year instead of $500 and still be claimed by the taxpayer, usually his parent, as an exemption. In recent summers many a college boy has had to give up a good job when his summer earnings reached $500 for fear his father would lose an exemption on his income tax return with unprofitable consequences to himself. Now Willie can earn $600 without getting Dad in trouble.

Taxpayers get some other breaks. Baby oils, powders and lotions will be relieved of the 20 per cent excise tax on similar articles. Taxes will drop on pipe tobacco, chewing tobacco and snuff. And the 20 per cent federal admissions tax is removed from tickets for certain fairs and entertainments, and symphony concerts and operas receiving substantial support from voluntary contributions. That will save a little money for those whose musical taste is educated up to symphony and opera.

But this cold fact remains, that Congress estimates the tax bite of the new bill will be some $5,700,000,000, and to collect that sum the tax collectors, whether they be political appointees or civil service employees, will reach right into the pockets of every one of us and practically turn them inside out.

LIBRARY ADDITIONS

The Editor acknowledges the receipt of the following books:

New and Nonofficial Remedies. Issued under the direction and supervision of the Council on Pharmacy and Chemistry, American Medical Association. J. B. Lippincott Company, Phil., 1951. $3.00

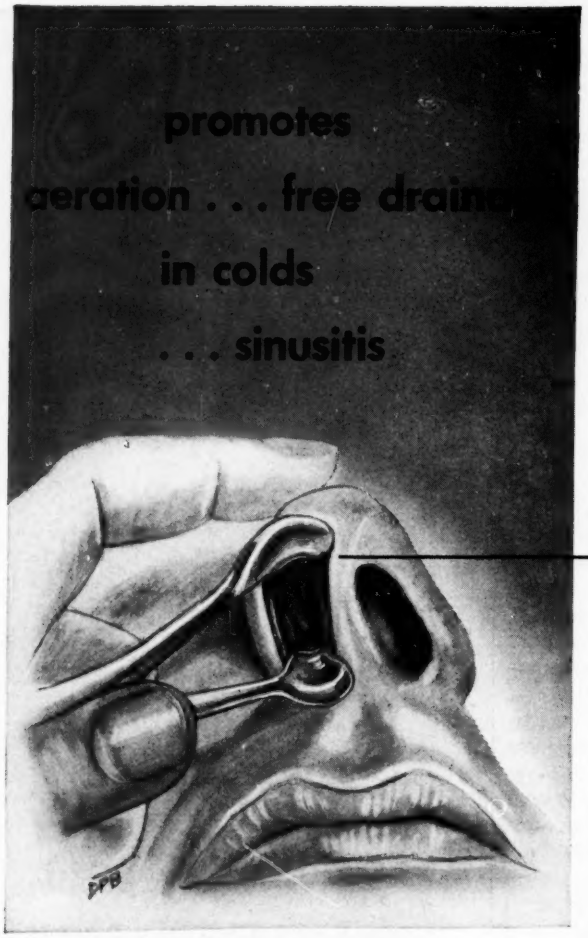
* * *

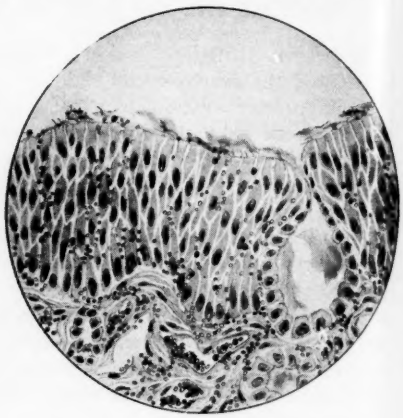
Philosophy for the Common Man by Heinrich F. Wolf, M.D. Philosophical Library, N.Y., 1951. $3.50

This book, written by a practising physician, is designed for the general reader and not for the professional philosopher. Philosophic problems are approached from the standpoint of science.

* * *

Parkinson's Disease. Advice and Aid for Sufferers of Parkinson's Disease and Other Physical Disabilities, by Walter Buchler. Lond., 1950. $2.00





Nasal membrane showing increased leukocytes with denudation of cilia.

Normal appearing nasal epithelium.

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Total combined annual income of husband and wife – from all sources – will determine a subscriber's right to Service Benefits.

PART II — SERVICE-BENEFIT PROVISIONS
will read as follows . . .

Participating Physicians have agreed with the Corporation that, except as provided below and in Part I (f) above, their charges for operative procedures will not exceed the benefit provided in the Master Schedule for such procedures and for medical services will not exceed the rate of $4.00 per day; provided the subscriber's rate of income does not at the time of disability exceed the limit of the appropriate eligible income group shown below:

(a) $3,600.00 — For subscriber who has enrolled two or more family members.
(b) $3,000.00 — For subscriber who has enrolled one family member.
(c) $2,400.00 — For subscriber who has enrolled himself only.

For the purpose of determining income eligiblity, a subscriber's income shall be deemed to be the combined annual income of subscriber and spouse.

Any subscriber who, except upon the order of his physician, occupies hospital accommodations in a private room thereby removes himself or herself from the eligible income group.

For any subscriber whose rate of income is in excess of that of the eligible income group, or who is entitled to receive benefits for the same or similar services from some other source, the benefits provided under this contract shall apply as an indemnity, and if the fee of the physician exceeds that amount, such charges shall be the liability of the subscriber.

R. I. Medical Society

PHYSICIANS SERVICE

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The above advertisement appeared on September 15, 1951 in the following daily newspapers: Providence Evening Bulletin, Woonsocket Call, Pawtucket Times, Newport News, and Pawtuxet Valley Daily Times. It also appeared in the Westerly Sun on September 16, 1951.

(SAVE FOR REFERENCE)

FACTS ABOUT A.M.A. DUES FOR 1952

1. American Medical Association membership dues for 1952 are $25.00.

2. Fellowship dues for 1952 have been abolished.

3. American Medical Association membership dues are levied on "active" members of the Association. A member of a constituent association who holds the degree of Doctor of Medicine or Bachelor of Medicine and is entitled to exercise the rights of active membership in his constituent association, including the right to vote and hold office as determined by his constituent association, and has paid his American Medical Association dues, subject to the provisions of the By-Laws, is an "active" member of the association.

4. American Medical Association membership dues are payable through the component county medical society or the constituent state or territorial medical association, depending on the method adopted locally.

5. An active member of the A M A is eligible for Fellowship and may request such status by direct application to the Secretary of the American Medical Association. Applications for Fellowship are subject to approval by the Judicial Council of the Association.

6. Commissioned medical officers of the United States Army, the United States Navy, the United States Air Force or the United States Public Health Service, who have been nominated by the Surgeons General of the respective services, and the permanent medical officers of the Veterans Administration, who have been nominated by its Chief Medical Director, may become Service Fellows on approval of the Judicial Council. Service Fellows need not be members of the component county or constituent state or territorial associations or the American Medical Association. They do not receive any publication of the American Medical Association except by personal subscription. If a local medical society regulation permits, a Service Fellow may elect to become an active member of a component and constituent association and the American Medical Association, in which case he would pay the same membership dues as any other active member and received a subscription to *The Journal of the American Medical Association.*

7. An active member of the American Medical Association may be excused from the payment of American Medical Association membership dues when it is deemed advisable by the Board of Trustees, provided that he is partially or wholly excused from the payment of dues by his component society and constituent association.

The following may be excused in accordance with this provision: (a) members for whom the payment of dues would constitute a financial hardship as determined by their local medical societies; (b) members in actual training but not more than five years after graduation from medical school; (c) members who have retired from active practice; (d) members who have reached the age of 70, and (e) members who are called to active duty with the armed forces. The last two categories are excused from A M A dues regardless of local dues exemptions.

8. Active members of the American Medical Association are not excused from the payment of American Medical Association membership dues by virtue of their classification by their local societies as "honorary" members or because they are excused from the payment of local and state dues. Active members may be excused from the payment of American Medical Association membership dues only under the provision described in Paragraph 7 above.

9. American Medical Association membership dues include subscription to *The Journal* of the American Medical Association. Active members of the Association who are excused from the payment of dues will not receive *The Journal* except by personal subscription at the regular subscription rate of $15.00 a year.

10.* Members may substitute one of the special journals published by the Association for *The Journal* to which they are entitled as members.

12. A member of the American Medical Association who joins the Association on or after July 1 will pay membership dues for that year of $12.50 instead of the full $25.00 membership dues.

13.* An active member is delinquent if his dues are not paid by June 1 of the year for which dues are prescribed and shall forfeit his active membership in the American Medical Association if he fails to pay the delinquent dues within thirty days after the notice of his delinquency has been mailed by the Secretary of the American Medical Association to his last known address.

14. Members of the American Medical Association who have been dropped from the Membership Roll for nonpayment of annual dues can not be reinstated until such indebtedness has been discharged.

15. The apportionment of delegates from each constituent association shall be one delegate for each thousand (1,000), or fraction thereof, *active members of the American Medical Association* as recorded in the office of the Secretary of the American Medical Association on December 1 of each year.

**This provision to be considered by House of Delegates of the AMA at its meeting in Los Angeles, December, 1951.*

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INDEX OF ADVERTISERS

Rhode Island
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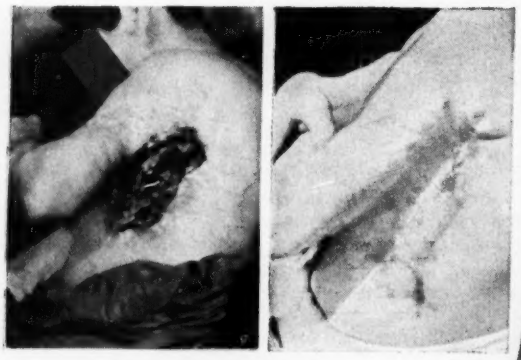

Progressive infection of a lacerated scar of the axilla had existed for ten years. All previous attempts to control this chronic infection had failed. Furacin Soluble Dressing brought the infection under control within one week.* Photo, at right above, shows condition after skin-grafting.

*Meyer, J. H.: J. Internat. Coll. Surg. 13:748, 1950.

Literature on request

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Literature on Request

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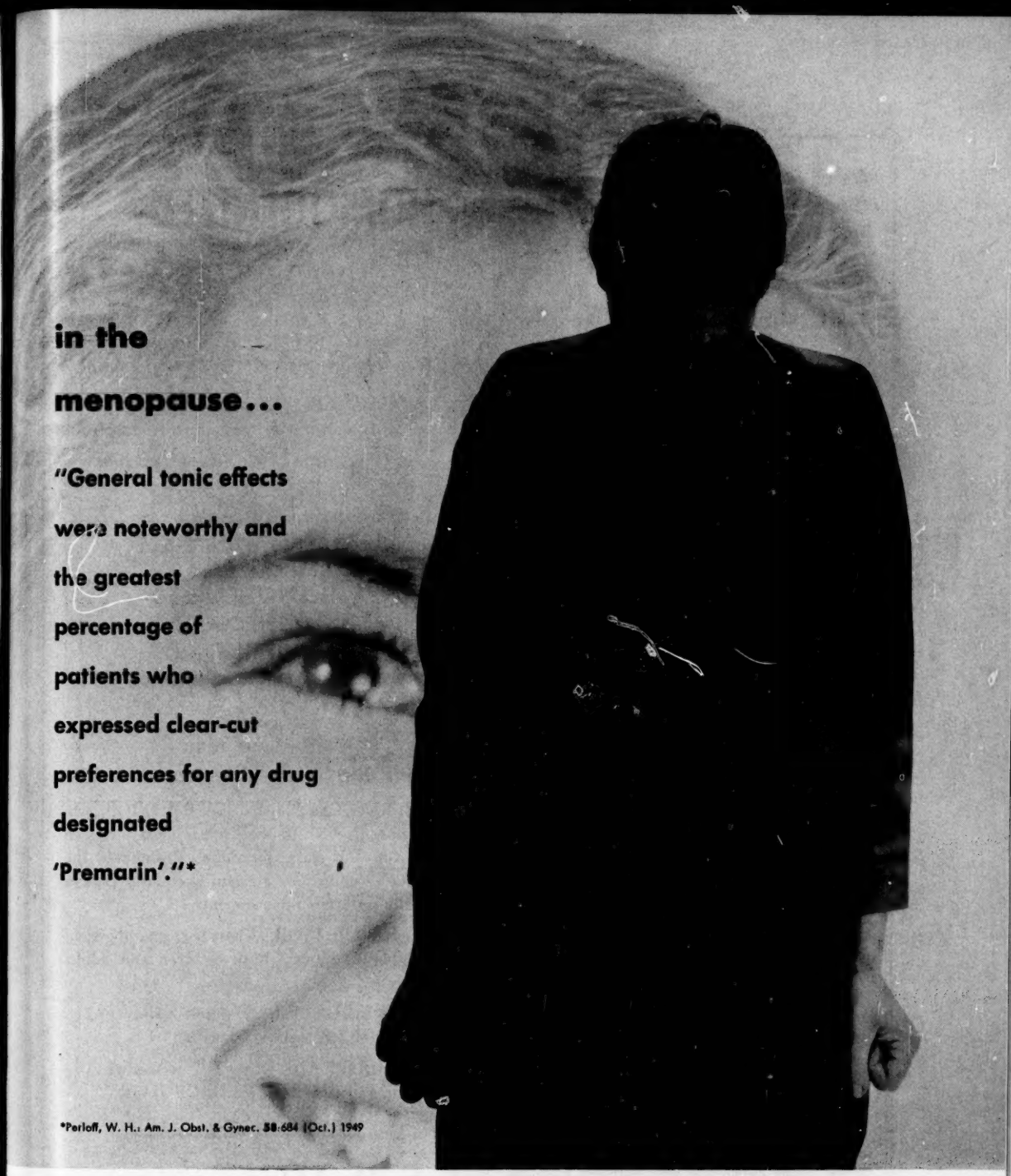

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*Perloff, W. H.: Am. J. Obst. & Gynec. 58:684 (Oct.) 1949

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MEETINGS AHEAD . . .

The Providence Medical Association

MONDAY, JAN. 7 . . .

Frank H. Lahey, M.D. on "LESIONS OF THE COLON, ILEUM and RECTUM"

MONDAY, FEB. 4 . . .

Leo M. Taran, M.D., (Medical and Research Director, St. Francis Sanatorium for Cardiac Children, Roslyn, L. I.) on "TREATMENT OF RHEUMATIC FEVER in the LIGHT OF RECENT DEVELOPMENTS IN HORMONAL THERAPY"

MONDAY, MARCH 3 . . .

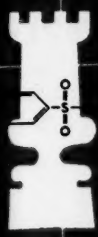
L. Howard Schriver, M.D., President, Medical Care Plans (Blue Shield), and Professor of Surgery, University of Cincinnati, Ohio, on "ARE THE BLUE SHIELD PLANS MEETING THE NEED FOR HEALTH INSURANCE?"

MONDAY, APRIL 7 . . .

Austin C. Daley, (Air Pollution Engineer, City of Providence) on "The PROVIDENCE AIR POLLUTION CONTROL PROGRAM"

and

Francis H. Chafee, M.D., Physician, Department of Medicine, R. I. Hospital, on "POLLEN SURVEY OF THE PROVIDENCE AREA."



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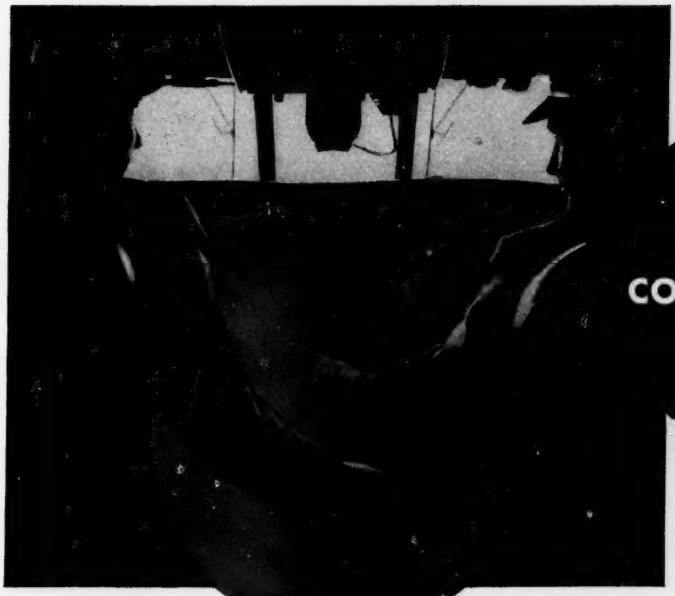

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for combined estrogen-androgen therapy

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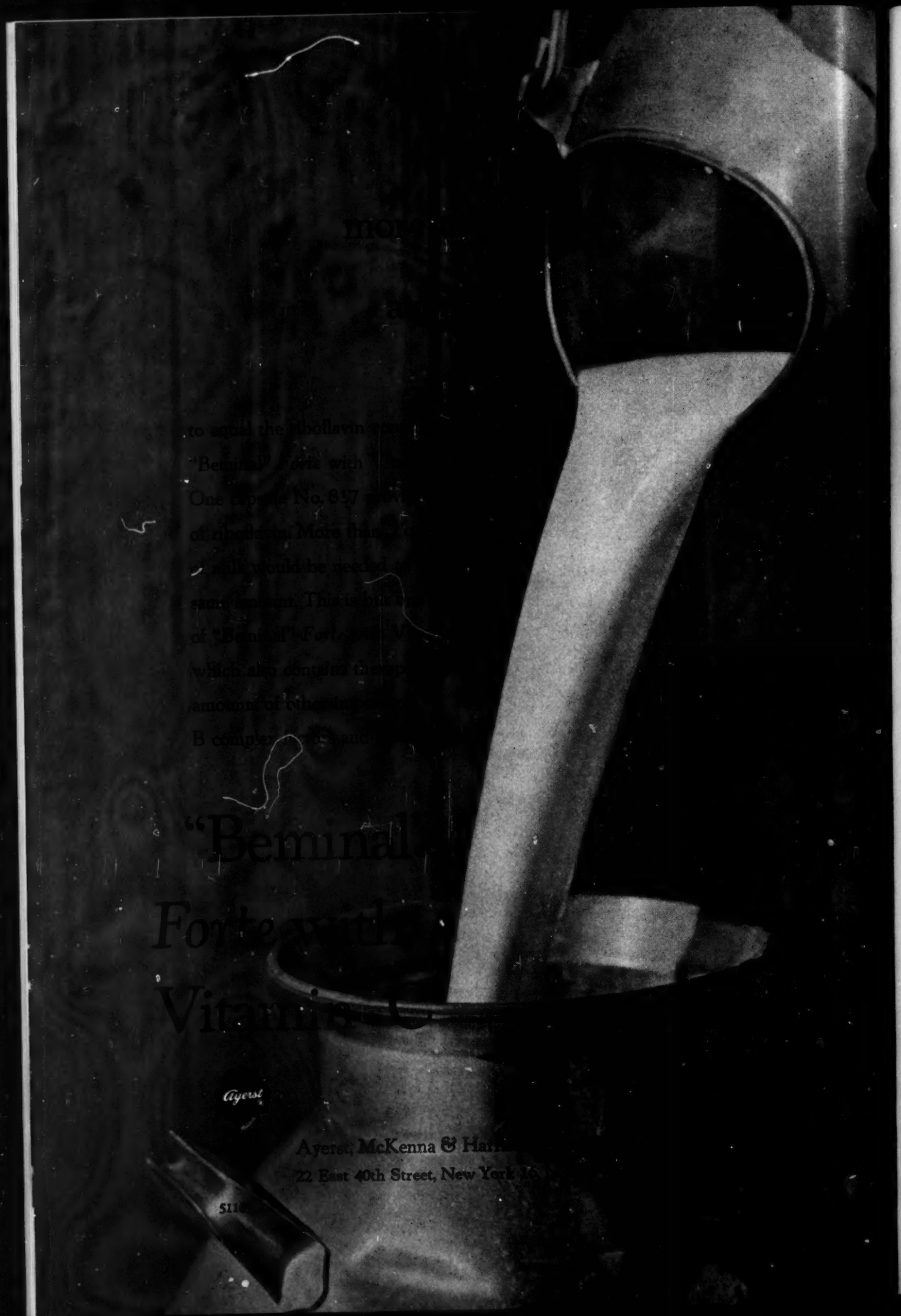
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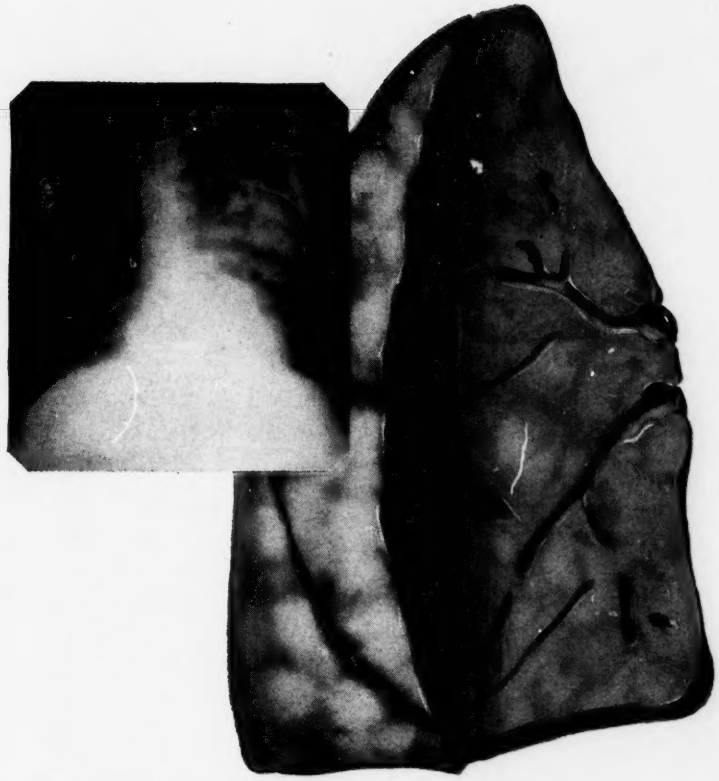

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Potterfield, T. G., and Starkweather, G. A.: J. Philadelphia General Hosp. 2:6 (Jan.) 1951.

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